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Exploring the Value a Psychological Assessment
brings to Workplace Coaching for the Purpose of
Stress Reduction and Increased Job Satisfaction

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Abstract

This research explored the impact of using a psychological assessment in workplace coaching to reduce stress, and increase job satisfaction and work engagement. Organisations that recognise employees as valuable assets are seeking ways to address stress in the workplace, and increase work engagement, and one of the tools often used is workplace coaching. While it is recognised that coaching is an effective tool for stress management, the aim of this research was to explore if there is any value in adding a psychological assessment to the coaching process. The study sample consisted of 42 individuals from a variety of occupations, genders, ethnicities and age groups, who were all reporting some level of perceived stress. The participants were randomly allocated into two groups, and both groups received four coaching sessions using positive psychology coaching tools, and one group also received a psychological assessment (MBTI) to enable greater data gathering on individual preferences and strengths. The research explored quantitative data from the Perceived Stress Scale and the Utrecht Work Engagement Scale, collected at three time points; Time 1 was collected prior to the start of the coaching programme; Time 2 was collected at the conclusion of the coaching programme; Time 3 was collected two months after the coaching had concluded. Although both groups reported continued reduction in stress levels as a result of the coaching, there was no significant difference between the experimental group (MBTI) and the control group. Work engagement scales showed no significant difference either within or between groups. An unexpected finding was that although ten of the original participants failed to complete the research, all ten were from the control group and the entire experimental group completed the coaching programme. The research has implications for both coaching practitioners and organisations, as both seek to identify tools to address workplace stress, job satisfaction and work engagement that have empirical evidence of effectiveness. Limitations and recommendations for future research are also considered.

Chapter 1: Introduction

As organisations seek to reduce operating costs, employees are often collateral damage. However many companies recognise employees as their most valuable asset, and seek to find ways to improve and retain valuable staff. One of the ways this is increasingly being addressed in organisations is through providing coaching to their staff, with a view to not only address problem areas, but also to develop valuable human potential.

What is coaching

Coaching is a goal-focused activity, where individuals seek out coaching for the goal of achieving something specific, whether it is in their personal life, their work life, or both. The focus of coaching can be aspect of an individual's life that can help them achieve personal growth (Neenan & Palmer, 2012). Whatever definition is held to, coaching is generally viewed as a collaborative interactive process between a coach and coachee ¹ for the purpose of supporting personal and professional development (Grant, Cavanagh, & Parker, 2010). The path to personal development is achieved by the coach helping the coachee identify and clarify goals and objectives that are seen as desirable outcomes of the coaching process. Subsequently, specific action steps are identified that will then be monitored, evaluated, and if necessary, adjusted or changed in a self-regulatory process throughout the coaching sessions, to facilitate progress towards the specified goals (Grant, 2012; Neenan & Palmer, 2012).

It is important to recognise that while many aspects of coaching are similar to therapy, coaching is not therapy. The similarities are evidenced in aspects of the importance of the coaching alliance (Kauffman, 2010; Rogers, 2012). The research on coaching suggests that the quality of the coaching relationship is recognised as being another important factor in achieving positive outcomes in coaching (Jarvis, Lane, & Fillery-Travis, 2006; Machin, 2010). However, the difference between

¹ The term coachee is the accepted term in the international coaching literature, therefore it will be used throughout this thesis.

coaching and therapy is that coaching seeks to start in the present and focus on and moving the individual forward, encouraging people to be their best in a non-directive way. In contrast, therapy focuses on exploring the origins of the current perceived psychological problems, often drawing on the past with a view to healing what is not right. The current study uses a self-designed questionnaire, based on the coach/coachee relationship research, to assess the coaching alliance, whether the strength of the relationship may have played a part in the coaching outcomes.

Modern day coaching is being successfully utilised across all levels of organisations and includes coaching for stress reduction; business and executive coaching, which includes leadership improvement and communication skills; team building; and change management (Grant et al., 2010). The current study included aspects of career coaching within workplace coaching. Career coaching can be used to ensure an employee is aware of their strengths and contributions, in order to enable organisational success (Ford, 2012). The career coaching model used in this study consisted of identifying an individual's values, motivators and life purpose (Talbott, 2013), all of which have been identified as key factors in a satisfying career. The rationale for the focus on identifying values, motives and life purpose in the current study is discussed further in chapter 2.

While many coaching sessions are conducted face to face, telephone and other electronic means are also used. The current study utilised telephone coaching if this was the option that was most suitable to both the coach and the coachee as there is no evidence to suggest that there is a reduction in positive coaching outcomes as a result of using electronic means to conduct coaching sessions (Lingely-Pottie & McGrath, 2006; McLaughlin, 2013)

A positive psychology coaching approach

Contemporary research discusses the growing interest in the area of applied positive psychology and suggests that coaching and positive psychology can form a natural alliance, as both coaching and positive psychology are concerned with the development of human potential and well being (Linley & Harrington, 2005; Seligman, 2007). Both coaching and positive psychology take the view that people

can be motivated by socially constructive directional forces, and that psychologists need to learn how to develop the qualities that will help people to flourish (Csikszentmihalyi, 1991; Csikszentmihalyi & Seligman, 2000).

The methods of positive psychology include strengths based coaching, cognitive behavioural coaching, which uses Socratic questioning, and feed forward coaching, all of which aim to increase self efficacy of the coachee and were all employed in the current study.

Psychological assessments in coaching

Many coaches believe that using appropriate psychological assessments in coaching can be a valuable tool as a short-cut to gaining information regarding the coachees preferences, capabilities, and potential that could otherwise take many sessions to obtain (Passmore, 2012; Rogers, 2012), which results in more productive coaching sessions (McDowall & Smewing, 2009). For the current study, the researcher chose to use the Myers Briggs Type Indicator (MBTI®²) as it is one of the most widely used psychological assessment tools in the world (Carr, Cooke, Harris, & Kendall, 2012), which has good reliability and validity when used in appropriate settings, including as a stress management tool (Lawrence, 2014).

Workplace Stress

Stress is a problem that cannot be ignored in the workplace, for both health and safety reasons, as well as the impact it has on organizational effectiveness. The New Zealand Occupational Safety and Health Service (OSH, 2003) state that *“Workplace stress is the result of the interaction between a person and their work environment. For the person it is the awareness of not being able to cope with the demands of their environment, with an associated negative response”*. Palmer (2013) posits that *“Stress occurs when perceived pressure exceeds your perceived ability to cope”*. This is in line with transactional model of stress, which says that there are two keys functions involved when deciding if something is stressful, that

² Myers-Briggs Type Indicator, Myers Briggs, MBTI and MBTI Logo are registered trademarks of the MBTI® Trust, Inc., in the United States and other countries.

of appraisal and that of coping (Lazarus & Folkman, 1987). The current study sought to raise each individual's knowledge of what may be causing them to feel stressed, with a view to making them aware of their resources for dealing with perceived stressful situations. This study took the view that time is a limited resource and energy is an unlimited resource, therefore the focus was on helping the coachees build their energy levels, which in turn would help with time management (Schwartz, 2007). Literature suggests that using this type of positive psychology approach within workplace coaching increases job satisfaction and engagement (Britton, 2008).

It is important to understand the relevance of job satisfaction in the workplace as contemporary literature suggests that there is an undeniable link between job satisfaction, subsequent work engagement, and organisational outcomes (Bucheli, Melgar, & Rossi, 2011). It has been shown that employees who report high levels of job satisfaction and work engagement, impact outcomes in organisations at a significant level (Harter, Schmidt, & Keyes, 2003; Robbins, 2000). Thus measuring the effectiveness of coaching to increase levels job satisfaction was a key focus of the current study.

Rationale and aims of the present study

There is a need for more empirical evidence that is relevant to practitioners. Research that is based on interventions designed specifically for coaching and their impact on organisations and individuals, not based on opinion and theoretical discussion (Garman, 2011). The lack of evidence based research to support or contradict claims on the benefit of using the psychometrics in coaching was the rationale for conducting current study, which sought to add to investigate whether using a psychological assessment in the coaching process would be more effective for stress reduction and increased job satisfaction than coaching alone.

The hypothesis examined in this study were as follows:

Hypothesis 1: It was hypothesised that participation in the coaching programme would be associated with reduced levels of perceived stress. The effect was

expected to be greater for the experimental group, with the added benefit of having access to the results of a psychological assessment (MBTI).

Hypothesis 2: It was hypothesised that participation in the coaching programme would be associated with higher levels and job satisfaction and work engagement. The effect was expected to be greater for the experimental group, with the added benefit of having access to the results of a psychological assessment (MBTI).

Hypothesis 3: It was hypothesised that the participants' results in the present study may be influenced by the strength of the coaching alliance.

Chapter 2: Contemporary Coaching

Coaching is a rapidly growing profession around the world with the 2012 ICF Global Coaching Study estimating the existence of 47,500 professional coaches worldwide (International Coaching Federation, 2012), an increase of 17,500 since their estimate of 30,000 in 2006. The study was commissioned by the International Coaching Federation (ICF) and independently conducted by the International Survey Unit of Price Waterhouse Coopers (PWC). Coaches from 117 countries in the regions of Asia, Eastern Europe, Latin America and the Caribbean, Middle East and Africa, North America, Oceania and Western Europe participated in the study, with 12,133 valid responses (www.coachfederation.org/coachingstudy2012). The study also indicated that nearly \$2 billion USD is spent annually on coaching, which is a significant amount of money being spent on developing human potential. The International Coaching Federation has in excess of 20,000 members and defines coaching as: *“partnering with coachees in a thought provoking and creative process that inspires them to maximize their personal and professional potential”*.

An alternative definition by Rogers (2012) posits that:

“Coaching is a partnership of equals whose aim is to achieve speedy, increased and sustainable effectiveness through focused learning in every aspect of the coachee’s life. Coaching raises self-awareness and identifies choices. Working to the coachee’s agenda, the coach and coachee have the sole aim of closing the gaps between potential and performance”.

The history of coaching

There seems to be a misguided belief that the origins of coaching lie in sports coaching and while the techniques of sports coaching can inform professional coaching (Jones, 2002; Palmer, 2010), there is evidence to suggest that coaching has been in existence for centuries (Briner, 2012). The evidence for the use of coaching techniques is recorded as far back as Socrates in Greece 2400 years ago, where Plato refers to playing a role enabling people to give birth to their ideas, much like a midwife encourages a mother to give birth (de Haan, 2008; Rogers, 2012). In more recent times, (the 70’s and 80’s), life coaching became popular as did business coaching and these areas have continued to gain popularity

(Kauffman, 2010). Palmer and Whybrow (2007) reported that in the 1990's coaching started to become more grounded in psychological theory. Today some of the theoretical models that coaching that draws on include; attribution theory, psychoanalytic theory, cognitive theory, self-determination theory; goal theory; self-regulating theory; expectancy theory; positive psychology; and a range of other socio-cognitive theories (Kauffman, 2010; Latham, 2007). Coaches have adapted the knowledge of these and other theories to develop effective coaching interventions in many types of coaching, including coaching in industrial and organisational psychology (Latham, 2007). This adaptation has resulted in eclectic coaching practices where coaching could almost be likened to a cooking recipe, with several different ingredients are combined to produce something beneficial, and there is a diverse range of recipes being offered in the coaching sessions.

Types of coaching

Historically coaching in the workplace has been seen as a tool to help underperformers, or to performance manage staff, but it is now frequently associated with developing top talent within organisations, with a view to enabling the realisation of organisational or work related objectives and goals (Goldsmith, 2009). However coaching has a much broader scope than this and is now being successfully utilised across all levels of organisations (Grant et al., 2010). Amongst the many different types of coaching available today are; career coaching; stress reduction, both personally and in the workplace; business and executive coaching, which includes leadership improvement and communication skills; team building; and change management. Career coaching was used in the current study as part of a work place coaching programme to ensure that each participant was aware of their strengths and contributions, which in turn can contribute to organisational success (Harter et al., 2003).

Career coaching

Career coaching combines many of the other theories of coaching, with theories on Career development. These include: Holland's theory of career choice; Bandura's Social Cognitive Theory; Super's Life-Span Theory; Parsons Theory of Occupational Choice; and Trait and Factor Theory. Frank Parsons developed the Theory of Occupational Choice, with a talent-matching approach that is still widely used in career guidance (Inkson, 2007). The theory was further developed into the Trait and Factor Theory of Occupational Choice. This concept of matching talent and traits to the job was one of the underlying theories used in the current study, which encompassed the identification individuals' values, motivators and life purpose or vision (Talbot, 2013). It is remarkable how many people are not engaged or satisfied in their jobs, and by clarifying the values, motivators and life purpose components, an unhappy individual can assess what is missing. Conversely, an individual can identify why it is they are satisfied, which is useful for making future career decisions. The notion of job-occupation misfit, which includes a misfit between an individuals values and personal characteristics has been supported in research (Ford, 2012). The coaching programme for the current study was based on the career coaching model of identifying values, motivators and life purpose, with the aim of helping the coachee identify the factors that may give them greater job satisfaction and better work engagement.

Values in the workplace

Values are the things that are intrinsically valuable or important to us and inform the choices we make both in life generally, and at work. People are happier and more satisfied when the role they are working in is aligned with their core values (Talbot, 2013). If the workplace does not share an employees most important values, they will likely experience inner turmoil and conflict, leading to stress and a feeling that they cannot be themselves. The incongruence with an individuals values, and that of the organisation where they work, has been linked to job dissatisfaction (Edwards, 1996). People often begin jobs full of positive expectations, but if those expectations are not met, they can become dissatisfied and may leave (Ford, 2012a). If an individual is more aware of their own values, they are able to factor that in to the decision to take employment, and consider

whether or not their values align with that of the company, helping to avoid the disappointment of job dissatisfaction. Ford (2012) draws on Lazarus and Folkman's transactional stress model when finding a relationship between the effect of a mismatch of job requirements and personal values and preferences.

Contemporary literature suggests that whether people are conscious of their values or not, they play a key role in career satisfaction. When people are aware of their values it helps them to make better career related decisions and help to guide them towards work they will find engaging. Values influence both actions and reactions and focusing on what is important can help an individual move towards a more satisfying career (Inkson, 2007).

Motivators in the workplace

Motivators are those things that cause us to want to do things and can be extrinsic where they are influenced by their interaction with external world, or intrinsic, coming from an individual's beliefs and expectations. The humanist theorists believe individuals are wanting to reach their full potential, and it is this that motivates their actions, while the social cognitive theorists believe that people's learning is motivated by supported learning environments (Eggen P. & Kauchak, 2010). All of these approaches can be used and addressed within the coaching environment, and be beneficial in facilitating a coachee's process towards identifying the factors in the work place that motivate them, and thus lead to higher levels of job satisfaction.

Life purpose and its relevance in the workplace

Successful people live their lives on purpose meaning they have something big and exciting that they are focused on moving towards (Talbot, 2013). Identifying an individual's life purpose is a component of the career coaching model that the current study used. Once people have a clear idea on what their life purpose is, they can use this knowledge to help them make decisions about their future by asking themselves "is this going to take me closer to my vision, or further away from it". Well known author Viktor E. Frankl posited that the primary

motivational force for every human being was their search for meaning (Frankl, 1985), and this is what a life purpose is, a search for meaning. There is more chance that an individual will experience job satisfaction if they can see how their current job is supporting their search for meaning and in some way contributing towards their life purpose,

The role of the coach

The role of the coach is not to tell people what to do, but rather empower them by helping to realise what it is they are capable of, and what they want to with that information; or to put it simply, help them to work out where they want to go, and how they are going to get there. This may seem like a straightforward process, but the old saying *“You can lead a horse to water, but you can’t make it drink”* is never more apt than in the coaching environment. In a perfect world, good coaching would lead to good results. However in reality, the effectiveness of coaching is not dependent on the coach alone, no matter how talented they are, it is a relationship alliance. Literature suggests that it is beneficial to dialogue with people who are different to each other, as it helps the coachee examine their beliefs and any evidence that may be contrary to those beliefs (Haidt, 2013). This is a role that the coach can take while working collaboratively with the coachee to achieve their goals. Ultimately it is up to the coachee to be responsive to feedback, and assume responsibility for their actions. Unless a coachee is willing to do this, they will make very little progress. The role of the coach is to provide ongoing support while facilitating the coachee’s progression through the self-regulating cycle of making plans for new behaviors and actions, and helping the coachee to monitor and adjust them if necessary. This process of guided discovery within the context of a strong coaching alliance, facilitates the learning and development of the coachee (Grant, 2012; Neenan & Palmer, 2012).

The importance of the coaching alliance

The literature addresses the topic of what makes an effective coach and the findings suggest that the quality of the coaching relationship is universally recognised as an important factor for achieving positive outcomes in coaching (Jarvis et al., 2006; Machin, 2010). There is a wealth of information and convincing

evidence from studies that have been conducted within psychotherapy research that we can assume to have a high degree of compatibility for diverse approaches, that can applied at least tentatively to coaching (Bachkirova & Cox, 2004; de Haan, 2008; Machin, 2010). A recent study has suggested that satisfaction with the coach-coachee relationship may have limitations for being a predictor of coaching success (Grant, 2013), but others studies continue to emphasise the importance of a strong coach-coachee alliance (Boyce, Jackson, & Neal, 2010; Bozer, C. Sarros, & C. Santora, 2014). Baron and Morin (2009) found solid empirical support for a positive correlation between the quality of the coach-coachee relationship development of a coachees' self efficacy. The number of sessions was also found to be an important factor in determining the strength of the relationship (Baron & Morin, 2009), and studies on both therapy and coaching continue to highlight the importance of the coaching relationship (Machin, 2010).

While there are differences between therapy and coaching, the reality is that there are more similarities than differences, and the differences are relatively small, making the research findings on the therapeutic relationship relevant to coaching (de Haan, 2008). The main difference between therapy and coaching is on the emphasis rather than the nature of the process; therapy tends to focus on moving a coachee from poor to average; coaching seeks to move a coachee from average to excellent, and under the assumption that there is an absence of pathology (Kets de Vries, 2005). This difference of emphasis means that there may be more of an equal footing in the relationship between the coach and coachee, compared to that of a therapist and coachee (Machin, 2010).

Gyllensten and Palmer (2007) conducted research into what the coachees' perception of the coaching experience was in relation to the impact on coaching for stress management and coaching relationship emerged as being an important factor. As is the case with other therapeutic relationships, both coaches and coachees recognise the importance of effective communication to achieve positive outcomes (Kiel, Williams, & Doyle, 1996). Working flexibly in a collaborative style to meet coachees' needs was also found to be important in establishing an effective coaching relationship. The literature suggests that it is important to co-create the

relationship by working together to identify the coaching needs, which then directs the coaching process (Boyce et al., 2010; O'Broin & Palmer, 2010). The quality of the interpersonal relationship between the coach and coachee is an important factor in the effective coach, coachee relationship, with the coach being able to be friendly without being a friend. Studies have found that the ability to build rapport, combined with the ability to maintain coachee confidences and gain their trust is a key aspect of bond and engagement within the effective coaching relationship (Boyce et al., 2010; O'Broin & Palmer, 2010).

While there is evidence that the coach–coachee alliance is an important factor in influencing positive outcomes a recent exploratory empirical study suggested that satisfaction with this relationship did not necessarily predict this, and suggesting that a goal focused coach –coachee relationship was a more powerful predictor of a positive coaching outcome (Grant, 2013). Even so, it would seem that the working alliance continues to be important to enable the coachee to accept the working processes within the coaching setting, such as a mutual agreement goal setting (Baron & Morin, 2009). Further to this, the current study uses a self-designed questionnaire based on the coach / coachee relationship research, to assess the coaching alliance between the coach and coachee, and what if any impact this relationship may have had on the coaching outcomes. This was an important consideration in the study, as if one group showed more improvement than the other, the impact of the coaching alliance would need to be considered as a possible cause.

The facilitation of coaching

The facilitation of coaching in today's global market place can take many forms and is not restricted to face-to-face sessions with the coach and coachee. Distance coaching using technology such as the telephone and audio-conferencing is increasingly being adopted (Frazee, 2008), and is proving to be a convenient alternative when face to face meetings are not possible. Some in the coaching industry remain skeptical about the effectiveness of using technology for coaching to replace face to face, and yet there is evidence to suggest that there is no resulting reduction in the strength of the therapeutic alliance when comparing effectiveness.

While there is not a large body of research available as to the outcomes of coaching via electronic means (McLaughlin, 2013), studies conducted for therapies such as cognitive behavioural therapy (CBT) and Transactional Analysis (TA) suggest that there is no reduction in the therapeutic alliance when comparing telephone administered therapy with face-to-face therapy (Stiles-Shields, Kwasny, Cai, & Mohr, 2014), supporting the view that a strong positive therapeutic alliance can be formed when using telephone coaching (Lingely-Pottie & McGrath, 2006). While the use of the telephone does eliminate visual cues, non-verbal vocal cues remain and these cues are both useful and critical in the coaching process as they convey emotion (Elman, Friesen, O'Sullivan, & Schere, 1980). Likewise, studies conducted using TA and CBT have found no negative impact on treatment outcomes when using the telephone in comparison with face-to-face therapy. The working alliance was also found to be positively associated with effective problem resolution in both distance coaching and face-to-face coaching.

Other benefits have been identified in using the telephone for therapy and coaching such as clinicians being able to provide care to coachees that would otherwise be unable to access their services (Elman et al., 1980). Using the telephone was also found to be helpful in gaining consistency and maintaining accountability in follow-up sessions (McLaughlin, 2013).

One of the most powerful aspects of the coaching process is the simple act of listening to the coachee, and summarizing back to them what they have just said, as this reflection of the coachees own words helps them to hear themselves more clearly, and identify their own themes (Groom, 2005). This process is just as powerful, and able to be just as suitably actioned whether it is used face to face, or via electronic means. Sometimes what the coachee really wants is just someone to truly listen to them, which is an important aspect of the role of the coach, and can be achieved by both electronic means and face-to face. The telephone and Skype were used in the current study to facilitate listening to the participant, if this was their chosen method of communication.

The structure of the coaching sessions

The length and frequency of coaching sessions varies based on why the individual is seeking coaching, their availability, money and time but would often be 45-60 minutes in length. However there is evidence to suggest that even short sessions can achieve positive outcomes (Scoular & Linley, 2006). A recent qualitative study reported surprisingly high levels of effectiveness from both the coach and coachees perspective, even when the sessions were kept to 30-minute time allocation. The coaches themselves reported being surprised at what they could achieve in 30 minutes, while the coachees were able to list specific outcomes that had been achieved from the 30 minute coaching sessions. It should be noted that this study was conducted with very experienced coaches.

Goals within the coaching framework

Goal setting is one of the most researched areas in the field of organizational psychology (Locke & Latham, 2002), and a large body of research has shown that the more clearly defined a goal is, the higher the performance outcome will be (Scoular & Linley, 2006). Almost all definitions of coaching specifically refer to the importance of identifying specific outcomes or goals for coachees, so that they can work towards achieving their individual goals, whether it be personal or professional (Grant, 2013). Grant (2012) states that a “...goal’ is generally understood as being ‘the purpose toward which an endeavour is directed; an objective or outcome’”. The strongest findings for organisational psychology research has shown that goal setting is pivotal in improving performance, but interestingly a recent study has unexpectedly found contradictory evidence which suggests that high outcomes can be achieved in coaching without the presence of goal setting (Scoular & Linley, 2006). It should be noted that this particular study was conducted with very experienced coaches, and should not be used as an argument against using goal setting as there is far more evidence to suggest that goal setting is an important factor in coaching than not. However, even when a goal is agreed upon, there should always be the opportunity for the coachee to modify their goals, and make room for planned happenstance.

Planned Happenstance Theory says that people are born with a unique set of traits into a unique context, and it is the interaction between these, and how the individual responds to unpredictable events that will inevitably occur, that determines the outcome (Mitchell, Levin, & Krumboltz, 1999). An individual should not be so wedded to a goal that has been identified, that they miss other opportunities that may be presented. Planned happenstance plays an important role in career coaching in particular as it allows for coaches to help individuals capitalise on all sorts of resources and events to facilitate learning, and thus enable each coachee to recognise their ability to create a satisfying career in today's constantly changing environment.

Coaching and positive psychology

The underlying basis of this coaching study stems from a positive psychology foundation. Prior to world war II, psychology focused on 3 branches: “*curing mental illness, making the lives of people more productive and fulfilling, and identifying and nurturing high talent*” (Csikszentmihalyi & Seligman, 2000). After the war, economic events changed the focus of psychology as many psychologists discovered that they could make a living by treating and researching mental illness. While the strides that have been made in this area are obviously beneficial, the more positive aspect of psychology was almost forgotten. In recent times positive psychology has enjoyed a renewed focus with psychologists recognising once again that psychology is not just about fixing what has been broken, but also nurturing and developing what actually is and what could be (Csikszentmihalyi & Seligman, 2000). Linley and Harrington (2005) define Positive psychology as the “*scientific study of optimal functioning, focusing on aspects of the human condition that lead to happiness, fulfillment and flourishing*”. However, positive psychology does not focus on the positive and disregard the negative emotions and problems, but rather sees them as natural and important part of life (Biswas-Diener, 2010).

Recently there has been interest in the area of applied positive psychology, and coaching is increasingly being seen as a natural partner to Positive Psychology (Linley & Harrington, 2005). Literature suggests that coaching and positive psychology can form a natural alliance, as both coaching and positive psychology

are concerned with the development of potential and well-being. Both coaching and positive psychology take the view that people are generally motivated by socially constructive directional forces, and that psychologists and coaches need to learn how to develop the qualities that will help people to flourish (Csikszentmihalyi & Seligman, 2000). Further, Seligman (2007) posits that positive psychology can provide coaching with the structure that it needs by providing it with the scientific measurements of interventions that actually work. The current study sought to add to the scientific research on positive psychology by using a strengths based coaching approach to improve individual stress management of the coachees.

Strengths based coaching

There is a growing body of research which suggests that a strengths based approach in coaching is a powerful tool in developing an individuals potential (Harter et al., 2003; Peterson & Seligman, 2004). Strengths are those things that come naturally to people, capabilities that they long to use and that energise them (Govindjii & Linley, 2007). Focusing on strengths and what is right with people, what they naturally do well, rather than focusing on the negatives, can provide the individual with valuable insight to live a powerful and fulfilling life (MacKie, 2014). Using a strengths based approach in coaching to develop an individual's awareness of their strengths is significantly associated with psychological well-being. It is worth noting that an individuals psycholoical well-being will only be positively affected if they are actually using their strengths, not just aware of what they are. The literature suggests that when an individual is able to use their strengths at work, it can drive employee engagement (Harter et al., 2003). Increasing work engagement was one of the objectives of the current study, which made the positive psychology approach of strengths based coaching a logical choice.

Cognitive behavioural coaching

There are a number of different coaching approaches, however, the approach employed in the current study was that of cognitive behavioural coaching, which is based on the principles of Cognitive Behavioural Therapy (CBT). CBT integrates Cognitive Theory and Behavior Theory. Cognitive Theory holds to

the basic assumption that an individuals' perception of the meaning of events cognitively influences their choice in determining behaviors (Belkin, 1988), while Behavior Theory argues that learning occurs through an observable association between a stimulus and a response. CBT emphasises that it is not necessarily specific events that determine our reactions, but rather our views of these events (Neenan & Palmer, 2012). The difference between Cognitive Behavioural Coaching and CBT, is that Cognitive Behavioural Coaching is used on non-clinical groups, and does not offer the quick fixes to achieve change that CBT may offer.

Cognitive Behavioural Coaching is a process of guided discovery, whereby the coach asks the questions, prompting the coachee to reflect and focus on their specific goal, and what steps they are going to take to get there (Passmore & Fillery-Travis, 2011). Cognitive Behavioural Coaching posits that every individual has the resources within themselves to reach optimal development (Rogers, 2012), and uses Socratic questioning as an integral part of the process.

The Socratic method of questioning in coaching

A significant amount of the coaches role within the coaching relationship is that of asking questions. Questions need to be asked for a variety of reasons including: gaining information for assessment, establishing goals, seeking clarification, establishing values, developing action plans and identifying blocks to progress (Neenan, 2012). The cognitive behavioural coach believes the coachee holds the answers they need within themselves and with the use of Socratic questioning, those answers can be drawn out. When the coach helps the coachee to draw out his or her own answers through Socratic dialogue, the coachee is able to discover a pathway forward in an efficient amount of time. Neenan (2012) posits that a good Socratic question should be; concise, clear, open, purposeful, constructive, focused, tentative and neutral. The aim of Socratic questioning is promote inner reflection with the purpose of bringing out knowledge for the coachee that they may not have been aware they held. Passmore and Fillery Travis (2011) refer to the questioning process in coaching as a: *"...Socratic based future focused dialogue between a facilitator (coach) and a participant (coachee), where the facilitator uses open questions, active listening, summaries and reflections which are*

aimed at stimulating the self awareness and personal responsibility of the participant”.

Feed forward coaching

A further technique that is grounded in positive psychology and is proving to be useful in the coaching interview is that of feed forward coaching. Feed forward coaching aligns well with both Socratic questioning and strengths focused coaching, as it looks at the best of what actually is and uses it to consider possibilities of what could be (Kluger & Nir, 2010; McDowall & Millward, 2010). Often organisations and coaches use feedback on areas that need improvement to try and elicit positive change and motivate people. However research suggests that performance improvement after feedback was modest, and in many cases had a negative impact (Kluger & DeNisi, 1996). Negative feedback often produces negative reactions such as anger, sadness, hurt and feelings of injustice (McDowall & Millward, 2010). While there is still a need to feedback important information, it may be beneficial to balance that with feeding forward positive aspects of a coachee's performance. By using feed forward coaching in a strengths focused structure, conversations can reflect on experiences that have elicited positive emotions and experiences for the coachee, and the conditions associated with them. The benefits of feed forward coaching are that they appear to elicit positive emotions and enhance well-being (Kluger & Nir, 2010). There is also evidence to suggest that this technique is beneficial in enhancing the relationship between coach and coachee, which is worthy of note from an organisations perspective when the managers coach their subordinates. In the current study the coach sought to identify the coachees' natural capabilities and strengths, and discuss how these could positively impact future work situations, thus contributing to increased to self-efficacy.

Psychological antecedents of strengths based coaching

Self-efficacy can be defined as the “*belief in one's ability to perform a task or more specifically to execute a specified behavior successfully*” Bandura (1977), it is the “can do” aspect and is one of many beliefs people can hold about themselves. These beliefs around self efficacy underlie important personality factors such as

optimism or pessimism, which determine whether an individual is likely to persevere through difficulties with heightened motivation, or feel that they are unable to succeed (Gleitman, Fridlund, & Reisberg, 2004). Bandura's theory posits that those with high self-efficacy are inclined to be healthier, more effective and more successful in general than those with low self-efficacy (Bandura, 2012).

A high level of self-efficacy will help a motivated coachee attain their goals. However an individual who is just as committed to the agreed goals, and highly motivated to achieve them, can struggle to make progress because they have low self-efficacy and are lacking the self belief that they have capacity to achieve the desired outcome. This is where coaching for self-efficacy can be beneficial, but it requires more than conveying positive appraisals alone. Bandura (1994) states that as well raising peoples beliefs in their capabilities, situations need to be structured in ways for them that are likely to bring success, while at the same time avoiding too many situations where they are likely to fail.

Bandura (1997) cites four information sources that influence self-efficacy as:

1. Mastery experiences where there has been success at overcoming obstacles
2. Vicarious experiences: Seeing people like yourself succeed.
3. Social persuasion: Persuading people to believe in themselves so that they will exert more effort thus increasing their chance of success.
4. Physical and emotional states: reducing stress and anxiety, increasing physical well being.

Self efficacy can be extended by the feed forward coaching techniques and strengths based coaching. Specifically the current study sought to extend the participants self efficacy by discussing their mastery and vicarious experiences and social persuasion, which would result in improved well-being and reduced stress levels.

Coaching and empirical research

There needs to be an evidence base for practicing coaches to draw from based on what works and what works best and this can only be achieved through research (Ellam-Dyson, 2012). Researching coaches need to study methodologies

and aspects of coaching that they find pertinent and interesting, and can be useful to both the coach and the coachee (Drake, 2008).

There is a substantial amount of coaching expertise in the world today, with practice always tending to precede solid research. The research base of published peer reviewed papers is growing with 425 papers published between 2000 and May 2009 (Grant et al., 2010), yet there is still little in the way of evidence to support the efficacy of coaching (Briner, 2012). Of the 499 papers published since 1980, only 186 were empirical studies and many of those were surveys. Longitudinal studies that have assessed the long term effectiveness of changes obtained through coaching are few and far between.

The coaching evidence base needed is one provided through randomised control studies, however conducting this type of research in applied settings is challenging for a variety of reasons including high drop out rates, ease of access to participants and budget constraints (Ellam-Dyson, 2012). A further challenge when conducting a randomised control study within coaching is that genuine randomised allocation of the control and intervention can be difficult to achieve (Grant et al., 2010). This may go some way to explaining why the applied evidence of randomised control studies is lacking for coaching interventions. It is crucial to address the lack of evidence in coaching effectiveness as coaching develops as a profession and moves towards tying together the research and the theories of human development and well-being. Workplace coaching in particular needs to be able to provide scientific evidence to businesses of the effectiveness of coaching so they can see they will get good ROI that helps them to be more strategic (Cohen, 2007). Garman (2011) highlights that scholarly work is often of little interest to anyone other than scholars, while practitioners see little point in subjecting their work to the peer review process as they do not see that the scholars add much in the way of practical insights. This is not to say that case studies and opinion pieces are irrelevant but there does need to be a bridging of the gap between science and practitioners. Coaching studies to date have tended to be either qualitative or quantitative, it may be worth considering combining the two to gain more useful

information (Grant, 2013). The current study used a randomised control design with quantitative measures.

A further reason why research in to evidence based practice is important has to do with the regulation of the coaching industry. The coaching industry is currently unregulated globally, with no barriers for entry. Qualifications range from none at all, to any type of degree, with some having taken coaching specific courses, but many have not (Seligman, 2007). Anyone can call himself or herself a coach and because of this there is a growing call from many in the coaching industry for it to be regulated to safe guard their professionalism. If the industry is to become regulated, then there needs to be a strong set of guidelines as to what does and does not constitute ethical and professional standards, and the only way to ascertain this is to have robust research to draw from.

Chapter 3: Coaching and Psychological Assessments

The use of psychological assessments is widespread and standard for many businesses, but is their use justified? Personnel and development data in the UK (Chartered Institute of Personnel and Development, 2013) found that interviews remain the most widely used form of psychological assessment in selection practices, however more than half of the organisations surveyed reported using some other form of assessment. The data suggests that 55% use specific skills tests, 45% use general ability tests, 45% reported using literacy and numeracy tests, and 42% used some form of personality or aptitude testing, all with the aim of making the best selection of employee for their vacancy. The use of assessments in business is big business.

There is a large amount of literature available on the use of psychometrics in leadership development as well as recruitment, and a growing amount of literature on coaching. Yet there is very little about the use of psychometrics and coaching combined (Buckle, 2012) nor is there data available on the use of assessments for developmental purposes such as mentoring and coaching (McDowall & Smewing, 2009). There is also a paucity of information available on the subjective experience of using psychometric assessments in coaching, or how and why they are being used by practitioners. A survey conducted at a coaching conference in the UK in 2007 found that 88% of the responding coaches used assessments and of those 60% reported using them with at least 70% of their coachees. This suggests a high proportion of coaches use assessments in their practices, making research into the effectiveness of using assessments within coaching relevant.

Psychological Assessments when used ethically and appropriately (Buckle, 2012; Passmore, 2012) are considered to be a valuable tool as a means to providing a short-cut to information regarding the coachees preferences, capabilities and potential that could otherwise take many coaching sessions to otherwise obtain (Rogers, 2012; Wasylyshyn, 2003). The quick access to a coachees preferences and strengths that an assessment provides facilitates the development of relevant discussion quickly, which results in a more productive coaching session (McDowall

& Smewing, 2009; Rogers, 2012). Coaches that use assessments feel they add to the coaching process in two ways; by providing more insight and giving the coach a better understanding of the coachee; and by giving them something tangible and powerful in terms of self-awareness and personal insights (Scoular & Campbell, 2007). If an individual is new to coaching, the impact of the psychometrics may be one of the most powerful outcomes of the coaching experience for them.

Psychological assessments use standardised administration and scoring which differentiates them from other types of assessments that coaches might use such as structured interviews or questionnaires. A good psychological test measures three criteria:

1. It must accurately measure the attribute of interest.
2. Must differentiate between those who have more and those who have less of the attribute.
3. Needs to be a good predictor of an outcome such as job performance.

A well-constructed valid and reliable psychological test is one that has been subjected to a rigorous and scientific process of development. The Myers Briggs Type Indicator (MBTI) is the psychological measurement instrument that was used in the current study. While current literature suggests disapproval from some psychologists and academics over the use of the MBTI, there has also been a large body of research suggesting that the MBTI is a valid and reliable tool, when used in the appropriate setting (Lawrence, 2014).

Background of the Myers Briggs Type Indicator

The Myers Briggs Type Indicator (MBTI®) is based on the Psychological Types theory of Swiss psychologist Carl Gustav Jung, published in German in 1921 (Carr et al., 2012; Jung, 1923). Jung developed his theory, which he called analytical psychology, which he developed when reflected on the break in his relationship with Freud. This prompted Jung to hypothesise that their differences arose because they each perceived the world in different ways. The resulting theory was developed to explain some of the personality differences and strengths found in the normal and healthy population (McGuiness, 2004).

Jung labeled the perception differences as differences as introversion and extraversion (Myers, 1993). Jung saw introverts as people who have their energy directed towards their inner worlds, and extraverts as people who have their energy focused towards the external world. Jung further developed his work through working clinically with people who were not very effective in everyday life, and were psychologically imbalanced he soon found that the two basic types or attitudes of *introversion* and *extraversion*, did not adequately explain all of the dimensions or differences of personality in individuals, so further dichotomies were developed (Myers, 1993).

Jung (1923) noticed that there were two ways people perceived or took in information, which he labeled sensation and intuition. People with the sensing function take in information based on what they see exists, the characteristics of what they see and know through the senses, taking what is there and making it better. Intuiting people focused more on connections, and possibilities, and enjoy experimenting with the new and different (Jung, 1923). Jung concluded that there are two different ways people make decisions, the *thinking* function of objective logic, and the *feeling* function which makes decisions from a values based perspective (Myers, 1993).

In developing the MBTI, Myers refined, clarified, developed and provided detailed descriptions of Jung's approach to psychological types (Bayne, 2004). Myers extended Jung's model by developing the dynamic aspect of the auxiliary functions, and adding the attitude dichotomies of Judging and Perceiving, for dealing with the world (Myers, 1993). Sixteen unique personality types are made up from combinations of these four sets of dichotomies. See table 5. The MBTI can be assessed at each preference scale, as well as for each of the 16 individual type combinations. Although there are 8 different dichotomies, and each individual has a preference for 4 of those, the MBTI says that the preference can be strong or weak, but everybody does have a preference (Myers, 1993).

The work that Jung undertook on psychological types was, from his perspective, useful for the psychologically imbalanced people he worked with. He was not particularly interested in using his theory to work with normal people (Myers, 1993). Katherine C Briggs and her daughter Isabel Briggs Myers spent years studying individual behavior and Jung's work, and sought to make the information accessible and beneficial to normal people (Myers, 1993; Quenk, 2002). World War II saw many women entering the workforce to help with the war effort. This motivated Myers to begin working on an assessment tool that would help these women to identify their Jungian types, with the goal of giving them some knowledge of their personality preferences and help them identify suitable jobs (Myers, 1993). This tool became the MBTI.

Applications of the MBTI

The MBTI is one of the most widely used personality assessments in the world (Bayne, 2004; Carr et al., 2012), which was one of the reasons it was chosen for use in this study. The MBTI is based on a model that sees personality in a positive and non-threatening way that enables both coach and coachee to appreciate individual strengths and the diversity in personalities. There are several versions of the assessment available, with the most widely used at this time being Form M (Schaubhut, Herk, & Thompson, 2009), which was the form used for the purposes of this study.

The MBTI has been used effectively in a variety of settings including counseling, conflict management, leadership development, change management, sales training, communication, team development, staff retention, stress management and coaching (Lawrence, 2014). Lawrence (2012) states the evidence of the usefulness and added benefits in educational settings, as well as team and organisational leadership development are well documented. A significant amount of research has been conducted on the use of MBTI instrument and suggests that it is effective for use with both individuals and groups (Schaubhut & Thompson, 2009).

The MBTI has been the subject of numerous studies looking at both positive and negative aspects of the tool, the uses and misuses, and the validity and reliability (Bayne, 2004; Coe, 1992; Schaubhut et al, 2009). One of the misuses identified is the administration of the MBTI by individuals who have not been trained to administer it (Coe, 1992). If the MBTI instrument is administered by individuals who have not been specifically trained to use it, they do not understand the limitations and pitfalls of the instrument, and the result may be unfair stereotyping of individuals, which can in turn affect morale and productivity.

Answering the critics of the MBTI

While there is a significant amount of research that supports the reliability and validity of the MBTI, there is criticism of the MBTI instrument from certain sectors of society, which can include academics, psychologists and media commentators (Lawrence, 2014). This criticism can be the result of the MBTI instrument being misused because of its apparent simplicity (Pittenger, 2005), however it would seem that the problem is not necessarily with the tool itself, but rather with how people perceive it and use it. Pittenger (1992) is correct in having concerns about the misuse of the instrument, however these concerns should be leveled at the administrators of the assessment, who have not taken the time to understand the tool they are using, not the instrument itself.

Other critics have cited the use of the MBTI for a recruitment tool as problematic, and take issue with stereotyping people (Coe, 1992). The creators of the MBTI have clear guidelines of what is appropriate use of the MBTI, and while using it as a selection tool is not an appropriate use, people continue to use it for this purpose (Coe, 1992; Myers, McCaulley, Quenk, & Hammer, 1998).

While everyone agrees that human beings are not all alike, many take issue with the idea of putting people into one of 16 boxes of reported and verified type (Carr et al., 2012). Any person who thinks the purpose of the MBTI is to stereotype, has missed the point of the MBTI, and the spirit of its intended use (Lawrence, 2014). The goal of the MBTI is to provide better insight for individuals, which will in turn provide those individuals better insight of others. The intent is to clarify our

strengths and empower individuals. Once people have verified their reported type, they can become aware of the things that come more naturally to them, and take care not to overuse the least preferred functions, which would lead to increased stress. Type theory helps individuals to understand what their preferred way of being is, and work with their strengths, enabling them to live stronger lives as they gain better understanding of themselves and was the aim of the current study.

There is cause to wonder if some of the historic negative academic attitudes that discounted Myers work are still evident in the minds of some people, despite the evidence of its effectiveness. The MBTI is viewed as the entry point personality assessment (Scoular & Campbell, 2007), and was deemed suitable for use in the current study because it seeks to identify an individuals strengths and preferences, which can then be incorporated into strengths based coaching sessions.

Chapter 4: The Impact of Stress in the Workplace

Stress is a problem that cannot be ignored in the workplace, for both health and safety reasons, as well as the impact it has on organisational effectiveness. The cost to businesses is immense as apart from less than optimal workplace productivity, stress has become one of the major reasons employees take time off work (Palmer, 2013). The New Zealand Occupational Safety and Health Service (OSH, 2003) define workplace stress as “... *the result of the interaction between a person and their work environment. For the person it is the awareness of not being able to cope with the demands of their environment, with an associated negative response*”. Palmer (2013) posits that; “*Stress occurs when perceived pressure exceeds your perceived ability to cope*”. This is in line with transactional model of stress, which says that there are two key functions involved when deciding if something is stressful, that of appraisal and that of coping (Lazarus & Folkman, 1987). Contemporary research has sought to extend this theory by looking at individual differences and whether they play a part appraising a situation as stressful or not (Webster, Beehr, & Love, 2011).

To date much of the focus on the effect of workplace stress has been on the effect on productivity rather than on individual well-being. While good productivity is the goal of business, if a more holistic approach were to be taken, and individual wellbeing became a bigger focus, greater productivity would be a natural consequence (Dijkstra, Beersma, & Evers, 2011; Grant, 2012b). Employee stress is a big concern for organisations, not only for productivity reasons but also because the law requires that it be taken seriously. The Health and Safety Act 1992 puts the onus on both employer and employee to ensure that every step possible is taken to ensure the absence of harm or possible harm to the workers, and this includes stress (Ministry of Business Innovation & Employment, 2011). The problem is identifying what stress is and how to take steps to ensure the stressors are eliminated, isolated and minimised (Ministry of Business Innovation & Employment, 2006).

Studies have found that not every stressor or demand is appraised the same way by everybody, so it would seem of little benefit to prescribe the same model of

how to deal with stressors to every situation and every organization (Webster et al., 2011). Our workplaces are more diverse than ever, and we need to understand this diversity before we can begin understand how different people are appraising the demands being made of them. Culture, gender and individual differences are some of the differences that can influence how a person appraises a demand and how they will cope with it. Care should be taken not to stereotype groups of people, but rather to consider their viewpoint. In New Zealand we have a large immigrant workforce, and their way of doing things may differ from ours, which may cause stress (A. C. Lyons, Madden, Chamberlain, & Carr, 2011). Gender differences have also been found to be present when appraising and managing stress this needs to be taken into consideration as well (Watson, Goh, & Sawang, 2011). Within these groups and others, there are individual personality differences to consider. An understanding of how different people are appraising situations and demands and the only way is by communicating with them because the evaluation of stress is not objective but subjective (Lazarus & Folkman, 1987).

There are many opportunities for demands to be viewed as stressful in a workplace. If there is confusion about role clarity, for example, discussion is the only way to get clarity (Hart and Cooper 2002). There can be teams that are functioning poorly and not coping with their workloads, which may cause them to be working longer hours at the expense of their health, leading to absenteeism (Tan & Hart, in press). Bullying, interpersonal conflict, workplace incivility (Sguera, Bagozzi, Huy, & Boss, 2011), job-occupation misfit (Ford, 2012b), job demands (Crawford, LePine, & Rich, 2010), work-life balance (Ueda, 2012) and many other issues can be a sources of perceived stress. But not everybody appraises the pressure or demands as stressful. Some people enjoy the pressure of some of the workplace demands and thrive on it, seeing it as a challenge and hard work. It is important to get clarity about what is being perceived as a hindrance and what is being perceived as a challenge. Some people thrive on challenge and find it motivating to work in a state of eustress.

Relevance of the MBTI to stress management

The MBTI was used in the current study as it serves to educate individuals on their stress responses, enabling recognition of what is happening that measures can be taken to address the situation. Quenk (2002) states that under great stress, individuals tend to behave in ways that are foreign to our true selves. This in itself can add to the stress, so it is important to recognise what is happening. For example, an introvert does not enjoy the company of other people when under pressure and can feel like the outer world is intruding. Conversely, as extraverts interact more with the external world, they may be more sensitive to stressful changes within it (Short & Grasha, 1995). If people are aware this is happening, the situation can be better managed by the individual being able to recognise their own triggers and warning signs, and take action. With the type of self-awareness gained from the Jungian types, people can put steps in place to deal with the situation as it happens, and before it causes further problems such as burn out or depression. Once a person reaches that state, they are less likely to be able to think clearly and make good decisions on how to alleviate the stress. Even when an individual has the information available to them regarding their strengths and stressors, they are more likely to experience stress when they neglect the things in life that give them energy to make good decisions and work to their best ability.

Energisers for managing stress

If people are to obtain and sustain great performance in their lives, they need to be achieving a good balance between activity and rest, as well as tapping into as many sources of energy that they can such as eating well and exercising regularly (Schwartz, Gomes, & McCarthy, 2011). Many people focus on good time management to achieve this balance, but Shwartz (2007) posits that time is a limited resource and yet energy is not, so we are better off to focus on building our energy levels, which will in turn help us to manage our time more effectively. If individuals focus on renewing the four energy needs in the four quadrants of emotional, mental, physical and spiritual, they are better equipped to function at their best. See figure 1.

Figure 1.
Our core needs

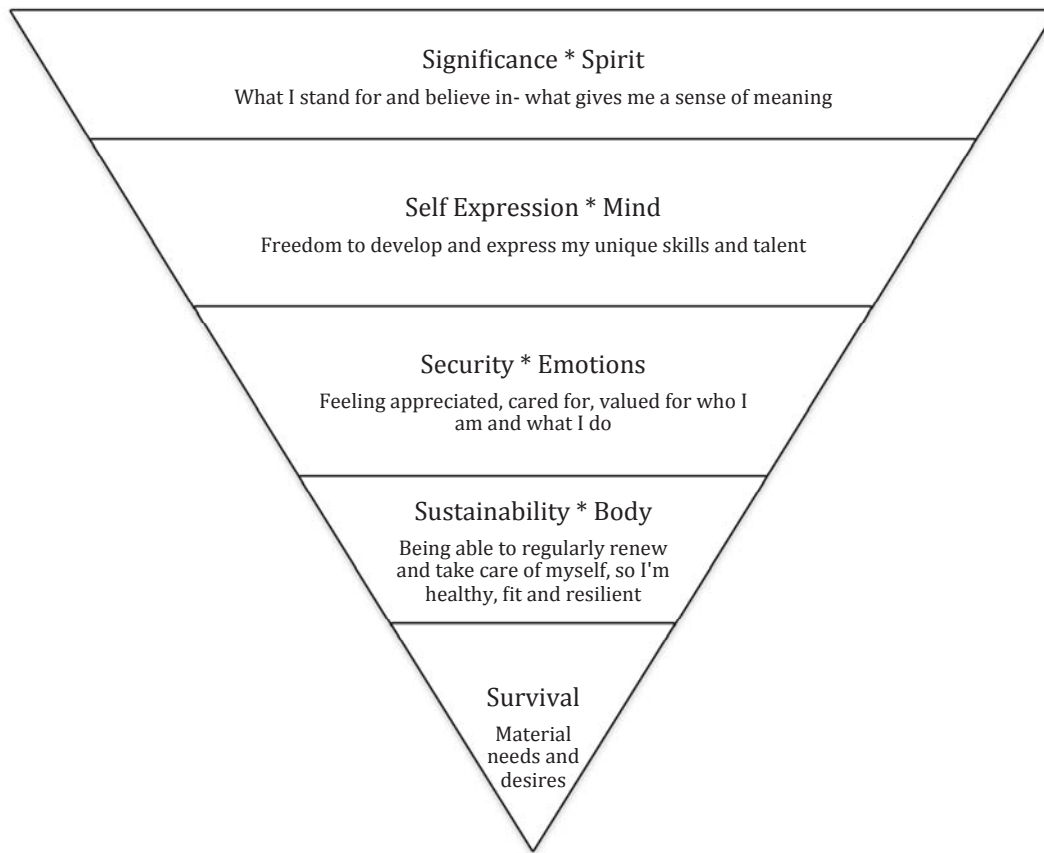


Figure 1. Copyright 2010, The Way We're Working Isn't Working. Used by permission of the Energy Project

The spirit quadrant

Shwartz (2011) defines the spiritual quadrant as who we really are, what are our deeply held values and passions, what our life purpose is, what we stand for. Our spiritual self is seen as being superior to, but includes, our emotional, mental and physical self. The more aware people are of their emotions, the more they are able to have influence over how they are feeling.

The mind quadrant

The mental quadrant refers to where people find themselves focusing their attention, and their ability to focus properly on the important tasks and not be distracted by the external obstacles that continue to invade daily lives, distracting

them from being productive and operating at optimal performance levels. In today's world, people are bombarded with too much information and can easily be overloaded. People may not even be aware that they are not making intentional decisions on where to focus their attention because they are living in a reactive way, responding to whatever draws their interest, feeling proud of their business, and yet being less than optimally effective.

The emotions quadrant

Peoples' emotions influence them and their actions whether or not they recognise it, and if people can recognise and manage these, the more likely they are to have better interpersonal relationships, and be more effective in the workplace.

The body quadrant

As obvious as it may be that people need to be aware of and take responsibility for the physical state, many people fail to prioritise this quadrant in their lives. When people fail to get enough sleep, eat well or exercise regularly, and work for hours at a time without taking regular breaks, they tend to rely more on sugar, caffeine and alcohol to help them deal with the demands of life. The stress hormones start to rise, and cortisol in particular has a variety of negative impacts on people if it circulates in their system for too long.

The current study used a questionnaire compiled by Scwhartz (2007) and published in the Harvard Business Review, to assess whether individuals were paying enough attention to the areas of their that enabled them to replace and build their energy levels, along with some suggestions to start redressing the balance.

Job satisfaction and work engagement

Increased job satisfaction was one of the goals of the current study and can be described as a reflection of the extent an individual likes their job (Kreitner & Kinicki, 2012). Robbins (2003) defines job satisfaction as "...the degree to which a

person identifies with his or her job, actively participates in it, and considers his or her performance important to self-worth". Landy et al (2010) posit that job satisfaction is a "*...positive attitude or emotional state resulting from the appraisal of one's job or job experience*". Although there is some confusion as to exactly how job satisfaction should be defined, a large body of research has shown there is an undeniable link between job satisfaction and organisational outcomes (Bucheli et al., 2011; Landy, 2010). Organisations need to understand job satisfaction because it not only boosts an employees work performance and engagement, but increases general well-being. An employee spends a large portion of their life at work, so work dissatisfaction it will have an impact on the rest of their life as well. An employees well-being is an important factor for businesses as the presence of positive perceptions in the workplace have been associated with lower turn-over rates, high profitability, higher productivity, and higher customer loyalty (Harter et al., 2003). Research suggests employees who report high levels of job satisfaction and engagement, impact outcomes in organisations at a significant level. This is typically because high engagement is evidenced by high levels of employee vigor, dedication and absorption.

Job satisfaction is based on numerous factors that are both intrinsic and extrinsic to each individual. One of the earliest theories relating to job satisfaction was developed by Herzberg in the 1950s (Herzberg, 1974), and his "two-factor" theory posits that there are factors in the workplace that create satisfaction, motivators which can lead to work satisfaction, and hygiene factors. Herzberg viewed hygiene factors as elements of the job that if present did not necessarily improve employees motivation, but if they were not present, they did lead to dissatisfaction. The two-factor theory includes achievement, responsibility, recognition, and advancement as motivators; and the hygiene factors include monetary rewards, competent supervision, working conditions, security, and policy and administration. Herzberg argues that hygiene factors need to be at an acceptable level simply to reach a neutral feeling about the job. This theory may have merit, but it assumes that all employees place equal importance on the same factors, where as individual differences need to be taken into account so that the organisation is focusing on the right areas to improve overall job satisfaction levels.

This can include looking at instances of job-occupation misfit within the organization.

Job-occupation misfit can be problematic as it refers to the misfit between what the individual's expected pressure and autonomy of an occupational role is, and the actual job's characteristics. In other words, employee's expectations are highly subjective, and job dissatisfaction could be described as the gap between the individuals expectations, and the reality of the situation (Bucheli et al., 2011). Job-occupation misfit has the potential to create psychological strain for the individual because the mismatches can result in job dissatisfaction and depression (Ford, 2012). Ford (2012) conducted a study which drew on Lazarus and Folkman's transactional stress model and the Person-environment (P-E) fit theory to assess how these job requirements and personal values and preferences combine to impact an individual's perception of job satisfaction. This is an important factor to consider, as when an individual's expectations are not met, they can become dissatisfied and leave. While this may be a good thing in some instances, generally organisations want to hold to keep their valuable staff members. Job-occupation misfit is relevant to the current study as literature suggests that there are many positive psychology tools available in coaching, including looking at individual differences, that can raise job satisfaction and engagement (Britton, 2008). Coaching can help an individual identify what their expectations are and whether or not there really is a gap between the job requirements and personal values and preferences, or if the helping the individual identify unrealistic expectations might be beneficial.

In sum, the present study explores an issue, which no previously published study has investigated, to present knowledge. While the impact of using coaching to reduce workplace stress has been investigated in previous research, the impact of adding a psychological assessment into the coaching process has not been investigated. The current study sought to investigate whether adding a psychological assessment into the coaching process would not only enhance the process towards reduced perceived stress, but also increased levels of work

engagement and job satisfaction. The impact of the coaching alliance was also a considered as a likely contributor to the coaching outcomes.

Previous research has considered the use of coaching as a tool to reduce workplace stress. While the current study recognises the positive effect of coaching on stress management in the workplace, it also examines the impact of introducing a psychological assessment into the coaching programme, with the aim of assessing the effect on perceived stress levels, work engagement and job satisfaction.

Chapter 5: Method

Participants

Participants were obtained from a variety of sources, which included a New Zealand branch of an international distribution company, a mortgage broking company and a range of independent participants. 42 participants signed up to take part in the study. The participants' age ranged from 18 to 63 years with a mean age of 36.88, sd 9.76, and consisted of 23 females ($M = 38.87$ sd = 11.15) and 19 males ($M = 34.47$ sd 7.34). They were all in full time employment and reported experiencing some level of stress or dissatisfaction in their lives, particularly pertaining to work. They represented a variety of organisations and positions as well as a cross section of ethnicities, including NZ Maori, NZ European, Pasifika, Asian, European and South African.

Table 1
Participant Demographics

Variable		Frequency	% of total
Gender ($n = 42$)	Male	19	45.3
	Female	23	54.7
Age ($n = 42$)	18-19	1	2.3
	20-24	2	4.7
	25-29	5	11.9
	30-34	13	30.8
	35-39	6	14.9
	40-44	7	16.6
	45-49	3	7.1
	50-54	3	7.1
	55-59	1	2.3
	60 and over	1	2.3
Ethnic group ($n = 42$)	Asian	5	11.9
	European	2	4.7
	Maori	6	14.9
	NZ European	25	59.5
	Pasifika	2	4.7
	South African	2	4.7
Employment ($n = 42$)	Organisation 1	23	54.7
	Organisation 2	8	19.1
	Individual	11	26.2

The first organization was a distributing company that had recently undergone a large restructure where two thirds of the employees had been made redundant, and the environment that remained was one of great change and uncertainty. The participants included employees with a wide range of positions including warehouse staff, customer service representatives, team leaders, sales representatives, IT specialists, office staff and managers who ranged from team managers right through to an acting general manager.

The second organization was a mortgage broking company that exists in a competitive environment in the marketplace, with brokers having the added pressure of working as self-employed and commission only. This type of environment can be perceived as stressful, and the participants included the office support staff, mortgage brokers and the director.

The remaining participants were individuals who had indicated that they were experiencing some perceived stress and felt they would benefit from some coaching sessions. They hailed from a variety of occupations including counselor, community worker, hairdresser, design, sales representative, and managers.

Table 2
Employment position totals of all initial participants

Job Title (n = 42)	Frequency	% Male (of total)	% Female (of total)	% of total
Accountant	1	0	2.3	2.3
Community worker	2	0	4.7	4.7
Counselor	1	0	2.3	2.3
Customer Service	2	0	4.7	4.7
Design Industry	2	0	4.7	4.7
Hair Dresser	1	2.3	0	2.3
IT	5	7.2	4.7	11.9
Manager	10	19.1	4.7	23.8
Mortgage Broker	4	4.75	4.75	9.5
Office Staff	5	0	11.9	11.9
Sales Representative	2	2.35	2.35	4.7
Warehouse worker	7	9.5	7.1	16.6

Of the 42 participants that initially signed to participate in the study, 39 booked an initial coaching session, however only 32 completed the required coaching sessions. Data from the individuals that did not complete the coaching

was dropped from the final analysis due to too much missing data. The participants that completed the coaching sessions consisted of 14 males ($n = 14$, $m = 34.43$, $sd = 8.33$) and 18 females ($n = 18$, $M = 39.28$, $sd = 11.31$) with ages ranging from 18 to 63 year and a total mean age of 37.16 ($n = 32$, $m = 37.16$, $sd = 8.33$).

Table 3
Employment position totals of participants who completed the research

Job Title ($n = 32$)	Frequency	% Male (of total)	% Female (of total)	% of total
Accountant	1	0	3.1	3.1
Community worker	2	0	6.2	6.2
Counselor	1	0	3.1	3.1
Customer Service	0	0	0	0
Design Industry	2	0	6.2	6.2
Hair Dresser	1	3.1	0	3.1
IT	2	3.1	3.1	6.2
Manager	9	21.9	6.2	28.1
Mortgage Broker	4	6.25	6.25	12.5
Office Staff	5	0	15.6	15.6
Sales Representative	2	3.1	3.1	6.2
Warehouse worker	7	12.5	9.4	21.9

The participants volunteered to take advantage of 4x30 min coaching sessions with a career coach. Time constraints of the study dictated the numbers that could realistically be undertaken by a single coach. Of those that dropped out, three did not even begin the process, one completed three coaching sessions, two completed two sessions, and the remaining four only completed the initial coaching session before discontinuing. There were no reasons given for the participants who discontinued their involvement in the study, as they stopped responding to the coach.

Design and Procedure

The current study was a randomised longitudinal design with measures collected before the coaching began, at Time 1, at Time 2 (after the 4 coaching sessions) and at Time 3 (follow-up, 2 months after completion of coaching) The Perceived Stress Scale (PSS) and the Utrecht Work Engagement Scale (UWES) were used to quantitatively measure levels of stress. The study consisted of each participant completing 4 x 30 minute coaching sessions, conducted either by

phone, Skype, or face to face, which was mutually decided on between the coach and the participants. Table 1 outlines the design of the study.

Table 4
Experimental design of the current study

	Time 1 Pre coaching	Time 2 Post coaching	Time 3 2 month follow-up
Experimental Group (MBTI)	Measures taken Begin Coaching include MBTI	Complete Coaching Measures taken	Final Measures taken
Control Group	Measures taken Begin Coaching	Complete Coaching Measures taken	Final measures taken

The participants were randomly allocated to two groups of 21 in each group prior to any measures being taken. Both groups of participants received coaching of a similar structure, which included worksheets on values and motivators, life purpose, and energy levels. The control group focused on these alone, while the second group also used the results of a psychological assessment to help identify individual strengths and possible stressors. The Myers Briggs Type Indicator (MBTI) was used for this purpose, which identifies an individuals preferences and typical behaviors by allocating them to one of 16 different type categories as identified by Myers Briggs (see Table 5).

Table 5
Jungian Type Table adapted from Myers (1993)

Contributions made to overall type by each preference					
		Sensing Types		Intuitive Types	
		Thinking	Feeling	Feeling	Thinking
Preference for Introversion	Judging	ISTJ	ISFJ	INFJ	INTJ
		I Ideas and reflection	I Ideas and reflection	I Ideas and reflection	I Ideas and reflection
		S Trusts tangible facts	S Trusts tangible facts	N Focuses on possibilities	N Focuses on possibilities
		T Analysis and logic	F Warmth and empathy	F Warmth and empathy	T Analysis and logic
	J Ordered and decisive	J Ordered and decisive	J Ordered and decisive	J Ordered and decisive	
	Perceiving	ISTP	ISFP	INFP	INTP
		I Ideas and reflection	I Ideas and reflection	I Ideas and reflection	I Ideas and reflection
		S Trusts tangible facts	S Trusts tangible facts	N Focuses on possibilities	N Focuses on possibilities
		T Analysis and logic	F Warmth and empathy	F Warmth and empathy	T Analysis and logic
	P Flexible and adaptable	P Flexible and adaptable	P Flexible and adaptable	P Flexible and adaptable	
Preference for Extraversion	Perceiving	ESTP	ESFP	ENFP	ENTP
		E People and external world	E People and external world	E People and external world	E People and external world
		S Trusts tangible facts	S Trusts tangible facts	N Focuses on possibilities	N Focuses on possibilities
		T Analysis and logic	F Warmth and empathy	F Warmth and empathy	T Analysis and logic
	P Flexible and adaptable	P Flexible and adaptable	P Flexible and adaptable	P Flexible and adaptable	
	Judging	ESTJ	ESFJ	ENFJ	ENTJ
		E People and external world	E People and external world	E People and external world	E People and external world
		S Trusts tangible facts	S Trusts tangible facts	N Focuses on possibilities	N Focuses on possibilities
		T Analysis and logic	F Warmth and empathy	F Warmth and empathy	T Analysis and logic
	J Ordered and decisive	J Ordered and decisive	J Ordered and decisive	J Ordered and decisive	

Each of the sixteen different types provides both coach and coachee with indications of how they may best operate, and gives them clear indications of where their strengths and preferences lie. The information gained from type table gives the coachee information that allows them recognise areas where they can best utilise their strengths and also situations they need to be aware of that may cause them stress.

Table 6
Behaviours related to the Eight Preferences

<i>What is the direction and focus of your personal energy?</i>	
Extraversion E Outgoing, expressive Energised by interaction Initiate conversation Act before reflecting Sociable – easy to get to know Have many interests Need regular interaction Interested more in external events Communicate more easily by talking Learn best by doing or interacting	Introversion I Reflective, quiet Energised by being alone Wait to be invited Reflect before acting Reserved – take time to get to know Focus on a few things in depth Need privacy for concentration Interested more in internal reactions Communicate more easily by writing Learn best by reading and reflecting
<i>How do you prefer to gather information?</i>	
Sensing S Perceive mainly through the 5 senses Focus on facts and details Trust concrete experience Realistic and observant Prefer practical matters Use a step-by-step approach Focus on the present or the past Seek stability Build up the big picture Need to see the parts to understand the whole	iNtuition N Perceive mainly patterns and connections Focus on possibilities and hunches Trust theory and abstract concepts Imaginative and innovative Prefer the imagination Use a random approach Focus on the future Seek change Begin with the big picture Need to see the whole to understand the parts
<i>How do you prefer to make decisions?</i>	
Thinking T Use logic to make decisions Seek honesty and truth Need to be competent Analyse and critique Firm and tough-minded Focus on justice and fairness Questioning – focus on Why Seek logical reasons Focus on goals and tasks Consider principles and consequences	Feeling F Use personal values to make decisions Seek personal approval Need to be appreciated Empathise Persuasive and warm-hearted Focus on mercy and compassion Accepting – focus on Who? Seek harmony with values and others Focus on people and relationships Consider the impact on people
<i>How much structure or flexibility do you need in the outer world?</i>	
Judging J Prefer a definite order and structure Organised and planned Seek closure Focus on reaching the goal Like to control events Make decisions quickly Systematic and methodical Comfortable with plans and timetables Enjoy completing one project before starting another Punctual, meet deadlines easily	Perceiving P Flexible Adapt easily to change Open-ended Focus on experiencing life Like to respond to the moment Explore all the options before deciding Casual, easy-going Prefer to be spontaneous Enjoy working on several projects at once Energised by approaching deadlines
<i>One preference from each pair is preferred and usually better developed</i>	

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Group 1 (experimental) was found to have a fairly even distribution of males (n = 10) and females (n = 11), with a wide range of occupations being represented. See table 8. The number of participants in Group 2 (control) who completed the study was reduced to 11 participants, with a less even distribution of males (n = 3) and females (n = 8), but there were still a wide variety of occupations represented. See table 9.

Table 7
Employment of participants randomly assigned to Group 1 (MBTI)

	Frequency	% Male	% Female	% of total
Experimental Group		(n = 10)	(n = 11)	(n = 21)
Accountant	1	0	4.7	4.7
Design Industry	1	0	4.7	4.7
IT	2	4.75	4.75	9.5
Manager	5	23.8	0	23.8
Mortgage Broker	3	9.5	9.5	19.0
Office Staff	4	0	19.0	19.0
Sales Representative	2	4.75	4.75	9.5
Warehouse worker	3	4.7	14.3	19.0

Table 8
Employment of participants randomly assigned to Group 2 (control) who completed

	Frequency	% Male	% Female	% of total
Control Group		(n = 3)	(n = 8)	(n = 11)
Community worker	2	0	18.2	18.2
Counselor	1	0	9.1	9.1
Design Industry	1	0	9.1	9.1
Hair Dresser	1	9.1	0	9.1
Manager	4	18.2	18.2	36.4
Mortgage Broker	1	0	9.1	9.1
Office Staff	1	0	9.1	9.1

Both groups started coaching at the same time, with measures for both Group 1 (experimental) and Group 2 (control) being taken immediately prior to the first coaching session (Time 1). A within subjects design was then employed with Group 1 taking the MBTI which was administered online and outside of the coaching sessions. The results of these assessments were used within the coaching programme of Group 1 (experimental). On completion of the 4 coaching sessions, the measures were retaken for each individual participant from both groups (Time 2). Final measures were taken two months after the completion of coaching (Time

3). All of the participants in the study completed the measures at Time 1, Time 2 and Time 3.

The structure of the coaching sessions

The coaching sessions were based on a cognitive behavioural coaching (Neenan & Palmer, 2012), and a solution focused, positive psychology framework. The cognitive behavioural coaching approach posits that understanding the reciprocal relationship between an individuals feelings, thoughts, behaviours and the environment can enable them to move forward. This approach fits well with the positive psychology perspective and helps focus the coaching towards a strengths based approach where an individuals' personal strengths are developed, rather than focusing on what may be perceived as a problem or weakness. Identifying and employing strengths and natural preferences of a coachee enables them to more easily identify their desired outcomes and achieve their goals. The coaching process allows the coach to support the coachee move through the cycle of self-regulation of setting goals, develop action plans, monitor, evaluate the actions and adjust if necessary at each coaching session, holding them accountable. The current study consisted on 30-minute sessions to work through the coaching process.

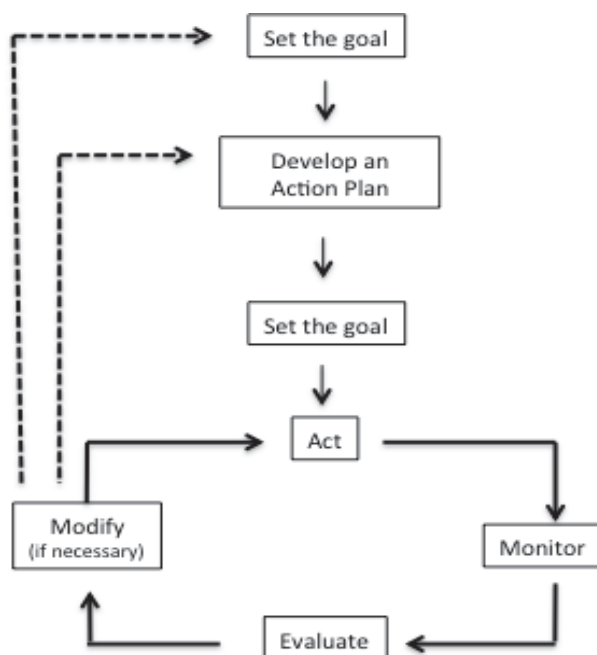


Figure 2. Generic model of self-regulation adapted from Grant (2011)

Session 1

The coach conducted as many of the first sessions as was possible face to face, individually. 30 participants were able to do this, however due to location and time constraints of the participants, two sessions were conducted via the telephone. Prior to the first 30 minute coaching session beginning, the coach asked each participant to fill in the Perceived Stress Scale (PSS) and the Utrecht Work Engagement Scale (UWES).

Group 1 (experimental) was advised that they had been randomly selected to have the Myers Briggs Type Indicator (MBTI) administered if they would like to do so. All 21 participants chose to take advantage of this, and they were advised that a computerised link would be emailed to them with instructions on how to take the assessment.

Both Group 1 (experimental) and Group 2 (control) took part in a coaching session where general information was collected, and the energisers questionnaire was administered, identifying areas where some improvement could be made. See Table 10. The energisers questionnaire was based on the core needs model as identified by Schwatz (2010), figure 1. Each participant identified at least two areas that they could commit to making improvements, identifying what they would like achieve as a result of the four coaching sessions. Each participant was given a questionnaire to aid them in considering what life purpose in life may be, which they were to bring back to the next session.

Table 9
Example questions and counteracting suggestions based on Energisers

Energy DEPLETING activities	
Body	I don't regularly get at least 7 to 8 hours of sleep and I often wake up tired
Mind	I work in the evenings or on weekends, and I almost never take an email free holiday
Emotions	I frequently find myself irritable, impatient, or anxious, especially when work is demanding
Spirit	I don't spend enough time doing what I do best and enjoy most
Energy or resilience BUILDING activities	
Body	Go to bed half an hour earlier
Mind	Designate particular times to respond to phone and email messages - turn off email alert
Emotions	Breathe in to the count of 3, breathe out to the count of 5
Spirit	Know the tasks and activities that energise you – give you a feeling of effectiveness and fulfillment

Session 2 – Life Purpose

Prior to the second session, all of Group 1 (experimental) completed the MBTI assessment.

1) The beginning of session 2 consisted of going through the reported type with the coachee to verify their reported type, and identifying reported preferences and strengths. 2) The goals that had been identified in session 1 were discussed and modified if necessary. 3) The life purpose homework was evaluated, discussed and clarified. 4) The Values worksheet was given to the coachee to be worked on before the next session. 5) The final step was a reminder of the actions they had agreed to take towards achieving their goals.

Group 2 (control) followed the process of step 2) goal revision, 3) life purpose homework revision, 4) giving the Values worksheet. 5) revisiting the agreed goal oriented actions.

Table 10
Life purpose questionnaire

Target Element	Example Questions
Purpose	What do you naturally do well? Is there a cause or value that you feel strongly about? What do you daydream (or dream) about doing? What do you want to be remembered for? What would you do if you could not fail?
Generic career coaching questions	

Session 3 – Values

Both group 1 and group 2 followed a similar process at session 3, with group 1 (experimental) being reminded how their identified strengths and preferences worked in the situations discussed. The process followed was:

1) The goals that had been identified in session 1 were discussed and modified if necessary. 2) The values homework was evaluated, discussed and clarified. 4) The Motivators worksheet was given to the coachee to be worked on before the next session. 5) The final step was a reminder of the actions they had agreed to take towards achieving their goals.

Table 11
Values questionnaire

Target Element	Example Questions
Values	What are your critical work values? What things do I want out of your work? How many values are being fulfilled in your current job?
Generic career coaching questions	

Session 4 - Motivators

Both group 1 and group 2 followed a similar process at session 4, which was the final coaching session. The only difference between the coaching of the two groups was that group 1 (experimental) once again being reminded how the strengths and preferences identified by the MBTI worked in the situations discussed. The process followed was:

1) The goals that had been identified in session 1 were discussed and modified if necessary. 2) The Motivators homework was evaluated, discussed and clarified. 3) Next there was a revisiting of the actions they had agreed to take towards achieving their goals and how close they were to achieving them now that the coaching sessions were at an end, as well as encouragement to carry on with their commitments.

Once the coaching sessions were completed, each participant who had completed the 4 x 30 minute coaching sessions were asked to complete the PSS and the UWES.

Table 12
Motivators questionnaire

Target Element	Example Questions
Motivators	<p>Think of examples where you felt highly motivated to do an activity</p> <p>What did these situations have in common?</p> <p>Can you identify the common threads that have motivated you?</p> <p>Can you think of other things that motivate you?</p>
Generic career coaching questions	

Two month follow-up

The PSS and UWES were once again administered to all of the participants who had completed the 4 x 30 minute coaching sessions two months after the coaching had been completed. A Post Coaching Questionnaire (PCQ) was also administered to gauge the strength of the relationship between each participant and the coach. Table 14 shows the questions that were included in the Post Coaching Questionnaire, that reflect the findings of contemporary research as to what components are beneficial in an effective coaching relationship (O’Broin & Palmer, 2010).

Table 13
Post Coaching Questionnaire

Questions rated 1 to 6
<p>My coach had qualities that I found helpful in coaching</p> <p>I felt that my coach understood me</p> <p>I felt that the coach and I were working together in a joint effort</p> <p>The techniques used in the coaching sessions were well suited to me needs</p> <p>A good relationship was developed with my coach</p> <p>The coaching sessions helped me gain new insights</p>

Measures

Overview of the Myers Briggs Type Indicator (MBTI)

The MBTI is one of the most widely used personality assessments and has been the subject of numerous studies looking at both positive and negative aspects of the tool, the uses and misuses, and the validity and reliability (Bayne, 2004; Coe, 1992; Schaubhut et al., 2009).

Reliability of the MBTI

CPP owns the rights to the MBTI instrument and has published the results of its most recent research using tests of internal consistency and test-retest reliability on Form M, and have achieved a high level of reliability on both measures (Nancy A. Schaubhut et al., 2009). A high level of reliability was found across a variety of employment situations, and reliabilities ranging from .80 to .92 were found across nine different ethnic groups, which suggests that the MBTI, using Form M, is reliable across different ethnicities. A high rate of reliability was found across international samples, age, occupations and gender, with internal consistency reliabilities ranging from .81 to .91. Correlations for each dichotomy indicated “good” to “very good” reliability over long periods of time using the test – retest method, and ranged from .57 to .81 (Table 14). These results are encouraging and useful for the current study, as the participants of current study comprised of both male and female, multiple occupations, ages ranging from 18 – 63, with a median age of 37 (similar to the reliability study), and multiple ethnicities. This adds a level of confidence in using Form M for the purposes of the current study.

Table 14
MBTI Form M Test-Retest Correlations

MBTI Dichotomy	Interval				
	All Intervals	<3 weeks	4 weeks- 6mths	6-12 mths	>1 year
E-I	.73	.77	.72	.70	.76
S-N	.70	.65	.76	.57	.78
T-F	.72	.81	.67	.74	.73
J-P	.67	.78	.71	.62	.61
Note: N=409; <3 weeks n=70, 4 wks-6mths n=139, 6-12mths n=115, >1year n=35					

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Validity of the MBTI

Testing for validity is to ascertain if we are measuring what we think we are measuring (Bannigan & Watson, 2009). The MBTI can be assessed at each preference scale, as well as for each of the 16 individual type combinations. Although there are 8 different dichotomies, and each individual has a preference for 4 of those, the MBTI says that the preference can be strong or weak, but

everybody does have a preference (Myers, 1993). The MBTI also demonstrates convergent validity over time with other assessments. The MBTI showed expected relationships with 6 other assessments including the CPI 260, the Firo B, and the Strong Interest Inventory (Schaubhut et al., 2009). Additionally, four of the five factors of the Big Five theory relate strongly to the four preferences of the MBTI (Bayne, 2004). One unique aspect of the MBTI is that validity can be tested by allowing people to consider and verify their “best fit” type, which is a critical part of the ethical MBTI process (Lawrence, 2014). Studies have reported rates of agreement on type ranging from 62% to 85% (Schaubhut et al., 2009). An individual verifies their “best-fit” by reviewing detailed information on their type descriptions, clarifying what each dichotomy represents, and whether the resulting four letter type sits well with them. If it does not, the individual adjusts the preferences to their “best-fit”.

Contemporary research provides evidence of strong neurological validity for the eight distinctive cognitive processes and sixteen types as identified by type theory (Nardi, 2011). Nardi (2011) runs a neuroscience lab that looks at the links between brain activity and personality as it relates to type. The process involves using an EEG sensor on individuals of different types, followed by them performing various activities, while the brain activity patterns are recorded. This topographic brain mapping has provided strong biological evidence for the type dichotomies.

There are several versions of the assessment available, with the most widely used at this time being Form M (Schaubhut et al., 2009), which is the version that was used in this study.

Perceived Stress Scale (PSS)

The Perceived Stress Scale (PSS) is an instrument that measures an individual's perception of stress in the previous month (Warttig, Forshaw, South, & White, 2013). The PSS is a self-report questionnaire where individuals rate how stressful they have evaluated situations to be on a 5-point Likert scale. The PSS is reportedly the most widely used instrument for measuring how stressful people appraise events in their lives to be (Cohen & Janicki-Deverts, 2012). The questions

are free of content specificity, making it useful for any subpopulation group and general in nature. Questions are asked about thoughts and feelings related to how uncontrollable, unpredictable and overloaded people have found their lives in the last month. The scale was developed because despite the common understanding that stressful events are at least to some degree appraised as such by the individual, there was no psychometrically sound measure available (Cohen, Kamarck, & Mermelstein, 1983).

PSS is reportedly the most widely used instrument for measuring how stressful people appraise events in their lives to be (Cole, Walter, Bedeian, & O'Boyle, 2012), and was designed for use with community samples, and for individuals with an education at least at the high school level. The questions in the PSS are free of content specificity and general in nature, making it useful for any subpopulation group, and individuals are asked about their thoughts and feelings relating to aspects of their lives in the previous month. The general nature of this scale made it a logical choice for use in the current study, due to the large variation of age and education represented in the study.

There are three versions of the PSS. The original version is a 14-item scale (Cohen et al., 1983), which was subsequently shortened to a 10-item scale (PSS-10) and a four item scale (PSS-4) was also introduced (Lee, 2013). A recent global study reviewed 19 articles that were related to the PSS and found that it was a questionnaire that was easy to use, which was mostly empirically evaluated on college students or workers, and shown to have acceptable psychometric properties (Lee 2013). It was found that factorial validity, internal consistency reliability, and hypothesis validity of the PSS were reported well. The test-retest reliability of the PSS-10 was assessed in four of the studies, and in all cases met the criterion of $>.70$. The psychometric properties of the PSS-10 were found to be superior to the PSS-14 and the PSS-4, studies and reported the alpha reliability coefficients remaining high at .82 (Roberti, 2006). The resulting recommendation was that the PSS-10 be used in both research and practice, and provided the rationale for the use of the PSS-10 in the current study.

Utrecht Work Engagement Scale (UWES)

The Utrecht Work Engagement Scale (UWES) is a self-report questionnaire consisting of 17 items which measure three assumptions of work engagement: Vigor (6 items), Dedication (5 items) and Absorption (6 items) (Schaufeli, Bakker, & Salanova, 2006). The items are all scored 7-point frequency rating scale, which ranges from 0 (never) to 6 (always / every day).

While there is no current globally accepted definition of engagement, (Cole et al., 2012). Work engagement can be defined as “... *a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption*” (Schaufeli, Bakker & Salanova, 2006). The three dimensions of engagement are conceptualized as being the opposites of the three components of burnout. Vigor is defined as the effort an individual is willing to invest into their work, even if they face difficulties, and is a direct contrast to burnout or exhaustion. Dedication refers to how strongly involved an individual is in their work and whether they have feelings of pride, enthusiasm, significance and challenge and is the opposite of cynicism. Absorption is when an individual is fully engrossed in their work and time passes by quickly, which is also referred to as a state of flow, and contrasts with burnout inefficiency, although it should be noted that there is some disagreement as to whether these two dimensions fall onto the same continuum (Byrne, 2014).

The UWES was originally a 24-item questionnaire, but was reduced to a 17 items after a psychometric evaluation eliminated 7 unsound items (Schaufeli et al., 2006). The 17-item questionnaire can be further shortened to a 9-item questionnaire (UWES-9) . Confirmatory factor analytic (CFA) studies have supported the theoretically based correlated three-factor—vigor, dedication, absorption—structure of the UWES-17 and UWES-9 (Seppälä et al., 2009). The study also found that, if the three dimensions were being studied in detail, then the separate dimensions should be analysed, but the combined one-dimensional variable of the UWES was suitable to use if the purpose of the study was to measure work engagement in general.

Although there is a lack of strong empirical evidence for the UWES, it remains popular in many countries and has been used in a significant amount of studies (Byrne, 2014; Seppälä et al., 2009). A recent multisample longitudinal study investigated the time invariance, factor structure, and factorial group of both the 17-item scale (UWES-17) and the 9-item scale (UWES-9). The results suggested that the UWES-17 did not remain the same across the samples and time, whereas the UWES-9 was recommended for future research as it showed good construct validity (Seppälä et al., 2009). The internal consistencies for the UWES-9 were found to be: 0.81 to 0.85 for vigor, 0.83 to 0.87 dedication, and 0.75 to 0.83 for absorption.

The researcher initially chose to use the 17 item (UWES-17) in this study as it was hypothesised that the greater number of items would provide more in depth data. In light of the recent research into the construct validity of UWES-9, the data from the study was subsequently analysed using the UWES-9.

Chapter 6: Results

Quantitative Data and Results

Data entry

Prior to statistical analysis, the data from the completed questionnaires was coded and entered using the Statistical Package for Social Sciences (SPSS), version 21. Data entry, including reverse coded items was checked against the hard copies of the questionnaires and the coding instructions of the questionnaires authors. These checks confirmed the accuracy of the data entry.

Statistical Analysis

The reliability of the Perceived Stress Scale (PSS), Utrecht Work Engagement Scale (UWES) and the UWES subscales of vigor, dedication and absorption were assessed. The analysis was based on the total sample of participants who completed the research, and were all found to have good consistency.

For all statistical tests, subjects were grouped into either the experimental group (MBTI) or the control group. In order to examine whether the differences in results were significant, a mixed between-within subjects analysis of variance (ANOVA) was conducted with repeated measures to examine the effect of including a psychological assessment in the coaching process to reduce stress (PSS), and increase job satisfaction and work engagement (UWES). The main effect of interest was whether or not there was a significant difference in the levels of perceived stress (PSS) and work engagement (UWES) between the control group and the experimental group (MBTI). The results were entered into tables showing the means scores and standard deviations for both the control group and the experimental group for the PSS, the UWES and the subscales of the UWES; vigor, dedication and absorption. The individual results of each participant were also graphed for the PSS, the UWES.

A one-way ANOVA was conducted on the data from the Post Coaching Questionnaire (PCQ) to examine whether there was a significant in the reported coaching alliance between the experimental group and the control group. The results were reported in a table and a bar graph.

Results

It was hypothesised that participation in the coaching programme would be associated with reduction in stress levels and increased job satisfaction. It was also hypothesised that including a psychological assessment in the coaching programme, in this case the MBTI, would be associated with greater reduction in stress and a higher level of work engagement than coaching alone. The participants represented a wide variety of verified type preference, as identified in Table 16.

Table15
Type Table Participants Group 1 (MBTI)

ISTJ 3	ISFJ 2	INFJ	INTJ 1
ISTP 2	ISFP 2	INFP 2	INTP
ESTP	ESFP	ENFP 4	ENTP 1
ESTJ 1	ESFJ 2	ENFJ	ENTJ 1

Distribution of reported type amongst Group 1

Means and standard deviations are shown for all variables on Table 16.

Data was analysed using a mixed between-within subjects repeated measures ANOVA, consisting of one within-subjects factor (group) and one with-subjects factor (time). A significance level of 0.15 was set for all tests.

Table 16

Means and standard deviations for the variables of group 1 and group 2 across time 1, time 2 and time 3 on the PSS, the UWES and the UWES subscales.

	Time 1		Time 2		Time 3	
	M	SD	M	SD	M	SD
PSS						
Group 1	19.67	7.24	16.38	5.83	14.52	6.98
Group 2	20.73	6.8	14.00	7.13	13.36	4.13
UWES						
Group 1	71.95	12.87	70.95	13.05	71.24	13.93
Group 2	62.64	15.30	67.91	15.13	73.09	19.08
Vigor						
Group 1	24.24	4.65	24.86	4.43	24.52	5.56
Group 2	22.09	5.10	23.64	5.75	25.55	6.17
Absorption						
Group 1	25.57	4.62	24.52	4.81	25.19	4.42
Group 2	22.18	5.60	24.45	4.72	25.64	7.63
Dedication						
Group 1	22.14	4.76	21.57	4.86	21.67	5.21
Group 2	18.36	4.72	19.82	5.29	21.91	5.82

PSS = Perceived Stress Scale; UWES = Utrecht Work Engagement Scale; Vigor = subscale of UWES; Absorption = subscale of UWES; Dedication = subscale of UWES.

Table 17

Reliability UWES-9 and PSS for the total sample

	T1	T2	T3
PSS	$\alpha.86$	$\alpha.85$	$\alpha.88$
UWES-9			
Total	$\alpha.93$	$\alpha.93$	$\alpha.92$
Vigor	$\alpha.85$	$\alpha.85$	$\alpha.82$
Absorption	$\alpha.82$	$\alpha.78$	$\alpha.76$
Dedication	$\alpha.86$	$\alpha.86$	$\alpha.87$

Means and standard deviations prior to data removal

In the control group it was observed that the mean scores started at a lower level on the UWES, and slightly higher on the PSS. It was hypothesised that this may have been the result of to a smaller sample size in the Group 2 (control, n=11) than the Group 2 (MBTI, n = 21), which was due to the fact that 10 participants

dropped out of the control group. The pre-coaching data was investigated to see if there were any differences between groups at Time 1 with all of the participants data included prior to their information being excluded due to their dropout from the study. Group 2A (control, n = 18) was compared with Group 1 (MBTI, n = 21) and Group 2 (control, n = 11). The results showed that difference between the mean scores did reduce with the all of the original participants included at time 1 for both the PSS and the UWES. This suggests that the uneven sample size explained some of the difference observed between groups at time 1.

Table 18
Means and standard deviations for groups at Time 1.

		Time 1	
		M	SD
PSS			
Group 1	n = 21	19.67	7.24
Group 2A	n = 18	20.89	6.52
Group 2	n = 11	20.73	6.80
UWES			
Group 1	n = 21	71.95	12.87
Group 2A	n = 18	65.67	14.91
Group 2	n = 11	62.64	15.30

PSS = Perceived Stress Scale; UWES = Utrecht Work Engagement Scale; Group 1 = MBTI; Group 2A = Control including all participants; Group 2 = Control excluding the participants who did not complete.

Figure 3
Perceived Stress Scale Group 1 (experimental). Graph showing the distribution of individual scores at Time 1, Time 2, and Time 3.

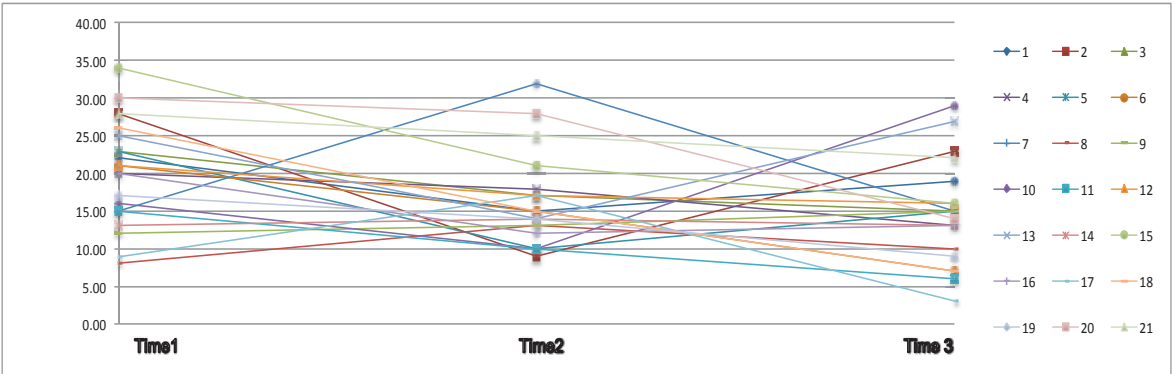
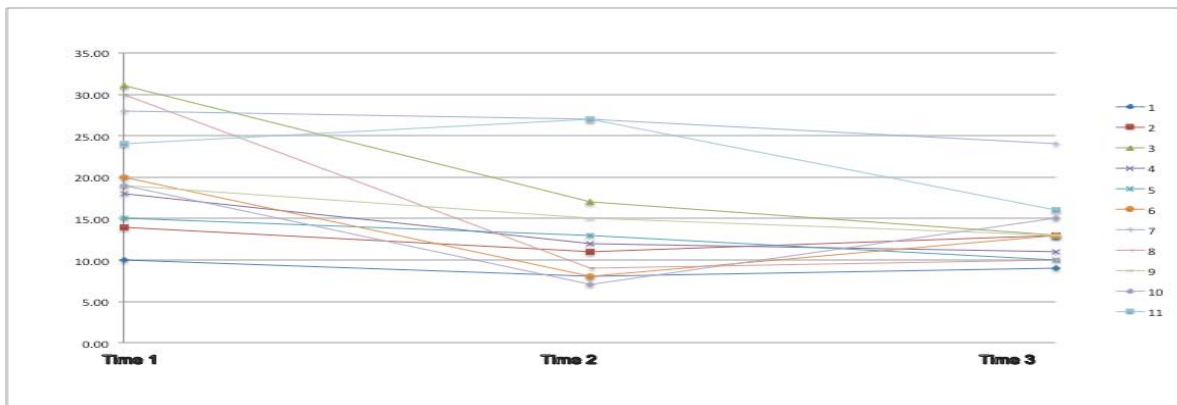


Figure 4

Perceived Stress Scale Group 2 (control). Graph showing the distribution of individual scores at Time 1, Time 2, and Time 3.



Perceived Stress Scale (PSS)

A mixed between-within subjects repeated measures ANOVA was conducted to assess the impact of two different interventions (coaching, MBTI) on participants scores on the Perceived Stress Scale (PSS) across three time periods (pre-intervention, post-intervention, and 2-month follow-up). There was no significant interaction between the group type and time, Wilks Lambda = .95, $F(2,30) = .76$, partial eta squared = .05. There results of the repeated measures ANOVA showed a significant main effect for time, Wilks Lambda = .56, $F(2,30) = 10.96$, partial eta squared = .27 , $p < .05$ for both groups showing a reduction in the PSS scores across the three time periods (see Figure 5) The main effect comparing the two types of intervention was not significant, $F(1,30) = .22$, $p > .05$ partial eta squared = .01, suggesting no difference in the increased effectiveness of including the MBTI in the coaching process.

Figure 5
Perceived Stress Scale (PSS)

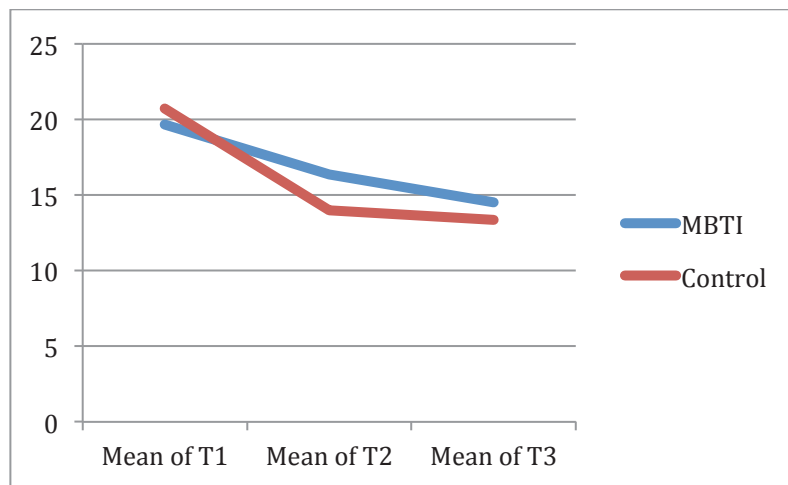


Figure 5. Perceived Stress Scale (PSS) changes after the coaching and coaching with MBTI interventions. Group 1 = MBTI, Group 2 = Control

UWES-9

Initially the UWES-17 was used in the current study. However a recent multisample longitudinal study investigated the time invariance, factor structure, and factorial group of both the 17-item scale (UWES-17) and the 9-item scale (UWES-9) (Seppälä et al., 2009). The results suggested that the UWES-17 did not remain the same across the samples and time, whereas the UWES-9 was recommended for future research as it showed good construct validity (seppala). The internal consistencies for the UWES-9 were found to be: 0.81 to 0.85 for vigor, 0.83 to 0.87 dedication, and 0.75 to 0.83 for absorption (seppala). In light of this information , and because there was some concern at unexplained variance results of the subscales of the UWES-17, it was decided to analyse the data based on the UWES-9 results. The sample size was not large enough to conduct an Exploratory Factor Analysis (EFA).

Figure 6
Utrecht Work Engagement Scale Group 1 (experimental) Graph showing the distribution of individual scores at Time 1, Time 2, and Time 3.

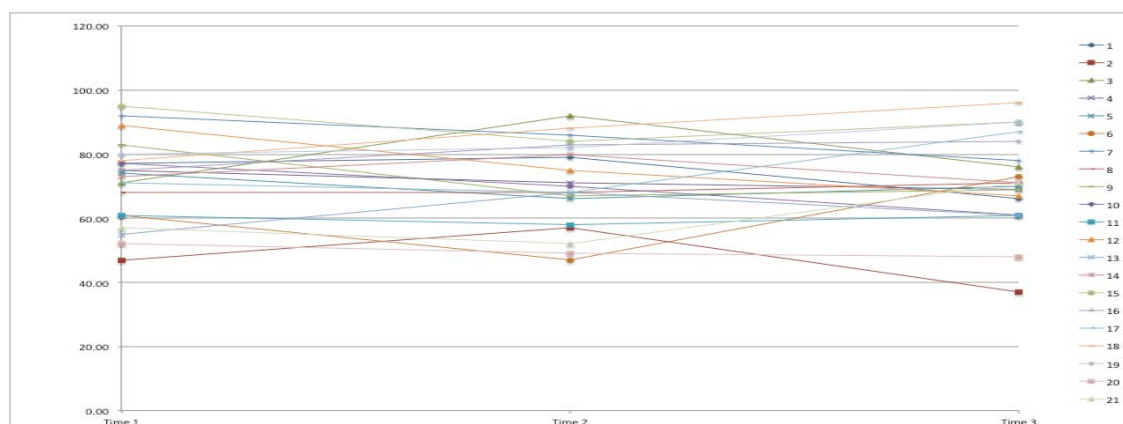
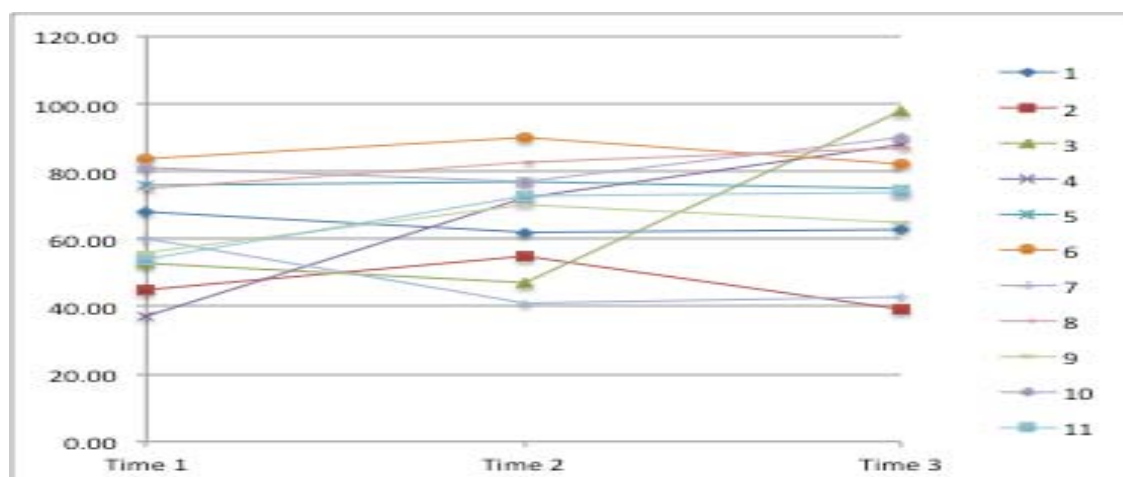


Figure 7
Utrecht Work Engagement Scale Group 2 (control) Graph showing the distribution of individual scores at Time 1, Time 2, and Time 3.



Utrecht Work Engagement Scale (UWES-9) total scores

A mixed between-within subjects repeated measures ANOVA was conducted to assess the impact of two different interventions (experimental and control) on participants scores on the nine item version of the Utrecht Work Engagement scale (UWES-9) and analysed across three time periods (pre-intervention, post-intervention, and 2-month follow-up). There was no significant interaction between the two groups and time, Wilks Lambda = .86, $F(2,30) = 2.41$, partial eta squared = .14, $p > .05$. There was no significant main effect for time, Wilks Lambda

= .89, $F(2,30) = 1.92$, partial eta squared = .06, $p > .05$. The main effect comparing two types of intervention was not significant, $F(1,30) = 1.50$, $p > .05$, partial eta squared = .05, suggesting no difference in work engagement scores between group 1 and group 2 (see Figure 8).

Table 19
Means and standard deviations for the UWES-9 variables

	Time 1		Time 2		Time 3	
	M	SD	M	SD	M	SD
UWES-9						
Group 1	38.23	8.10	37.95	7.53	37.71	8.34
Group 2	31.45	8.72	34.91	9.04	37.72	10.34
Vigor						
Group 1	11.66	3.15	12.05	2.63	11.57	3.12
Group 2	9.45	3.24	10.55	3.21	11.64	3.50
Absorption						
Group 1	13.33	2.49	13.05	2.38	13.33	2.28
Group 2	10.82	3.87	12.27	3.19	12.91	4.23
Dedication						
Group 1	13.24	3.06	12.86	3.10	12.81	3.44
Group 2	11.18	2.60	12.09	3.17	13.18	3.68

UWES-9 = 9 item version of the Utrecht Work Engagement Scale.

Figure 8
UWES-9 total scores

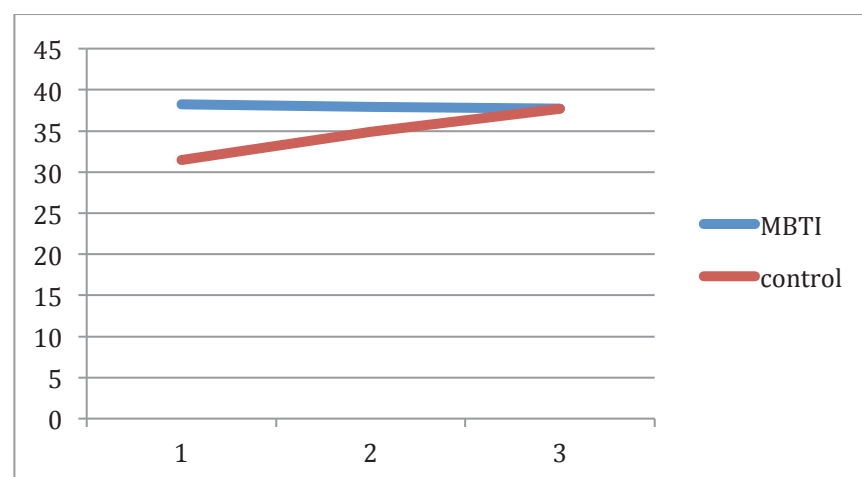


Figure 8. Utrecht Work Engagement Scale -9 (UWES-9) changes after the coaching and coaching with MBTI interventions. Group 1 = MBTI, Group 2 = Control

Absorption subscale of UWES-9

A mixed between-within subjects analysis of variance was conducted on the three subscale items for absorption in the UWES-9. The analysis sought to compare levels of absorption across three time points (Time 1, Time 2, and Time 3) between group 1 (experimental) and group 2 (control). There was no significant interaction between group and time, Wilks Lambda = .86, $F(2,30) = 2.26$, partial eta squared = .13, $p > .05$. There was no significant main effect for time, Wilks Lambda = .89, $F(2,30) = 1.87$, partial eta squared = .06, $p > .05$. The main effect comparing two types of intervention was not significant, $F(1,30) = 1.91$, $p > .05$, partial eta squared = .06, suggesting medium but insignificant effect in absorption between the two groups (see Figure 9).

Figure 9
Absorption UWES-9

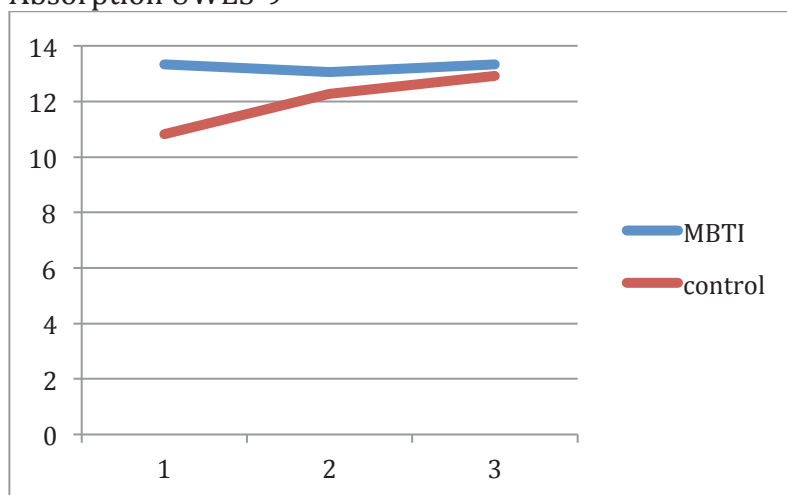


Figure 9. Absorption subscale of Utrecht Work Engagement Scale-9 (UWES-9) changes after the coaching and coaching with MBTI interventions. Group 1 = MBTI, Group 2 = Control.

Dedication subscale of UWES-9

A mixed between-within subjects repeated measures ANOVA was conducted to assess the impact of two different interventions (coaching and MBTI) across three time points (Time 1, Time 2, and Time 3) on participants' scores on the 3-item subscale for dedication on the nine-item version of the Utrecht Work Engagement scale (UWES-9). There was no significant interaction between the two groups and time, Wilks Lambda = .85, $F(2,30) = 2.55$, partial eta squared = .15, $p > .05$. There was no

significant main effect for time, Wilks Lambda = .94, $F(2,30) = 1.08$, partial eta squared = .06, $p > .04$. The main effect comparing two types of intervention was not significant, $F(1,30) = .65$, $p > .05$, partial eta squared = .02, suggesting no significant effect in dedication between group 1 and group 2 (see Figure 10).

Figure 10
Dedication UWES-9

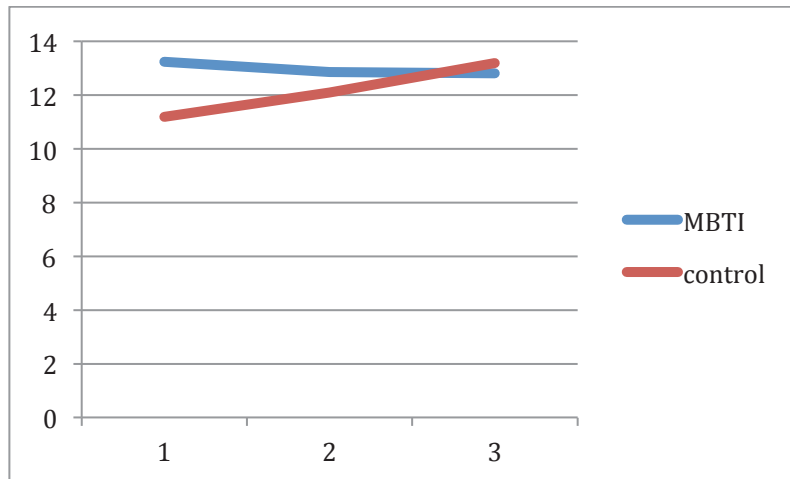


Figure 10. Dedication subscale of Utrecht Work Engagement Scale-9 (UWES) changes after the coaching and coaching with MBTI interventions. Group 1 = MBTI, Group 2 = Control.

Vigor subscale of Utrecht Work Engagement Scale (UWES)

A mixed between-within subjects analysis of variance was conducted on the three subscale items for vigor in the UWES-9. The analysis was conducted to compare scores across three time points (Time 1, Time 2, and Time 3) between group 1 (experimental) and group 2 (control). There was no significant interaction between group and time, Wilks Lambda = .91, $F(2,30) = 1.47$, partial eta squared = .09, $p > .05$. There was no significant main effect for time, Wilks Lambda = .89, $F(2,30) = 1.85$, partial eta squared = .06, $p > .05$. The main effect comparing two types of intervention was not significant, $F(1,30) = 1.61$, $p > .05$, partial eta squared = .05, suggesting no significant effect in absorption between the two groups (see Figure 11)

Figure 11
Vigor UWES-9

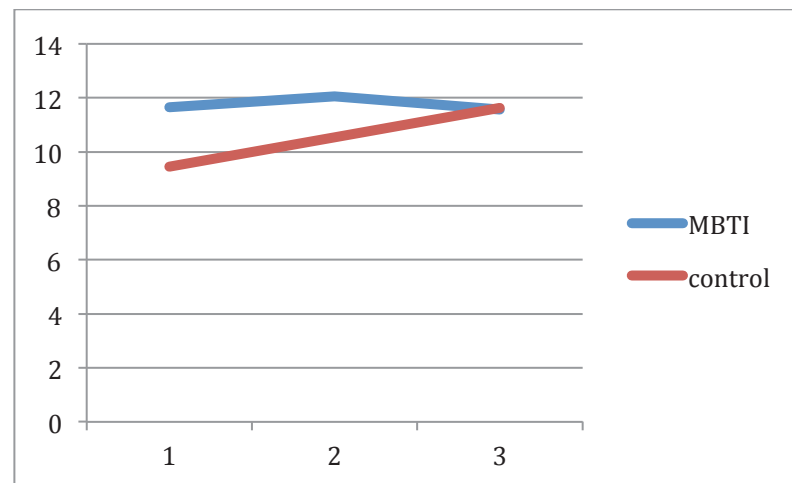


Figure 11. Vigor subscale of UTRECHT Work Engagement Scale-9 (UWES-9) changes after the coaching and coaching with MBTI interventions. Group 1 = MBTI, Group 2 = Control.

Post Coaching Questionnaire (PCQ)

Table 20
Means and standard deviations for the six item Post Coaching Questionnaire

	PCQ-1		PCQ-2		PCQ-3		PCQ-4		PCQ-5		PCQ-6	
Total n= 32	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Group 1 n=21	5.24	.62	5.24	.77	5.29	.72	5.00	.89	5.42	.60	5.33	.91
Group 2 n=11	5.45	.69	5.73	.65	5.36	.81	5.18	.98	5.54	.69	5.36	1.03

Group 1 = experimental; Group 2 = control

A one-way between groups ANOVA was conducted to analyse the data from the Post Coaching Questionnaire (PCQ). The means of group1 (experimental) and the means of group 2 (control) were compared on the six questions on the PCQ to explore the possibility that one group may have perceived a stronger coach-coachee alliance than the other group. The results show that in all six of questions on the questionnaire, group 2 (control) reported a stronger coach – coachee alliance than group 1 (experimental). The results suggest that the reported stronger alliance for group 2 (control) may

have influenced more positive coaching outcomes when compared to group 1 (experimental), however both groups reported experiencing a strong coach coachee alliance, see figure 12.

Figure 12
Post Coaching Questionnaire responses for Group 1 and Group 2.

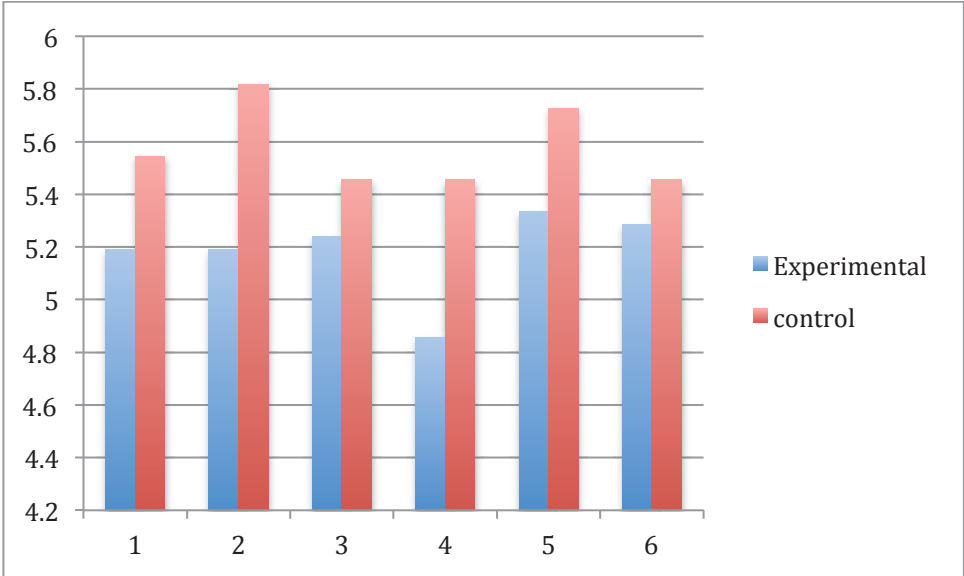


Figure 12. Bar graph showing the means of responses to the questions on the coaching alliance questionnaire for the experimental group (MBTI) and the control group. Group 1 = experimental, Group 2 = control.

Chapter 7: Discussion

The main aim of the current study was to assess whether there was any quantifiable benefit in including a psychological assessment in the coaching process to enhance stress reduction, and increase job satisfaction and work engagement. It was theorised that a psychological assessment (MBTI) would increase the data gathering capacity of the coach regarding the coachees strengths and preferences (Wasylyshyn, 2003), in a shorter space of time than coaching alone. The current study focused on identifying strengths and stressors for all participants, however it was theorised that the experimental group would have a greater depth of information gained from the psychological assessment, and would therefore have enhanced success in building self efficacy, self awareness, and identifying strategies to reduce stress. The expectation was that both the control group and the experimental group would show a reduction in stress levels, but the experimental group would show a greater reduction in perceived stress levels.

Hypothesis 1: The graphs and tables representing the changes in the PSS scores indicated that reported levels of perceived stress decreased for both the experimental group and the control group, but there was no greater decrease observed in the experimental group (Group 1). The data analysis of the test scores for the PSS did not find a significant interaction between time and group, showing that perceived levels of stress did not decrease significantly more in the experimental group (MBTI) compared to the control group. There was a significant interaction effect for perceived stress levels between Time 1 and Time 2 indicating that both Group 1 and Group 2's levels reduced. There was no significant difference in stress levels at Time 3 (the two month post coaching follow-up) for either group, however the results indicated that initial reduction had remained, with participants in both groups reporting a continued reduction in stress.

The data analysis of the PSS indicated that hypothesis 1 is partially supported; the results suggested that participation in the coaching programme was successful in contributing to participants' reduction in stress levels in both the experimental group and the control group. The result is consistent with previous research into using coaching to reduce perceived stress levels (Palmer, 2013).

Contemporary research also suggests that it is important to clearly define what the focus or goal of the coaching programme is in order to gain positive results (Grant, 2013), and the current study clearly defined that stress reduction was the overall goal. The defining of stress reduction as an outcome of the coaching programme may have contributed to the participants working to achieve the goal.

However, the main aim of the study was to ascertain whether there was any quantifiable benefit in adding a psychological measurement (MBTI) into the coaching programme and it was hypothesised that there would be a greater reduction in stress levels for the experimental group than for the control group. The results do not support this hypothesis as both the control group and the experimental group showed similar levels of stress reduction measured at Time 2 and Time 3.

Hypothesis 2: It was hypothesised that levels of job satisfaction and work engagement would be higher as a result of participation in the coaching programme, and that the levels would be higher for the experimental group (MBTI) than the control group. Although the goals of increased job satisfaction and increased work engagement were not clearly defined as goals of the coaching programme, each participant signed the participation agreement form where the title included the goal of increased job satisfaction. The results of the mixed factor repeated measures ANOVA of the UWES-9 scores indicated that there was no significant increase in the total scores for the experimental group (MBTI) between Time 1, Time 2 and Time 3. However there was a moderate increase in scores for work engagement in the control group 2 between Time 1, Time 2 and Time 3. Unexpectedly, Hypothesis 2 was not supported, as the reported level of work engagement did not increase across time for both groups, and the group that did show increased levels of job satisfaction was the control group and not the experimental group.

The results of the data analysis may be partially attributed to the events and situations that a quantitative study cannot capture. There are many factors that affect a coachees perception of stress and subsequent work engagement, which

may not be directly associated with the job; thus qualitative measures may reveal information regarding influences that have affected the coachees perception of stress, enabling a more holistic approach, which in turn may affect their levels of work engagement and job satisfaction. Several of the participants of the current study reported significant life events that may have impacted on the coaching data.

Some of the participants in the control group could have provided qualitative data that may have helped to explain the results of the data from the current study. One participant from the control group had recently moved cities, not of their choice, and was in the process of integrating into a new community as well as relocate their business activities. At the conclusion of the coaching, this individual was much more settled, which may have been as a result of the time it takes to adjust to a new setting, but the coaching may have provided much needed support through the process, by providing an safe environment to work through their situations with Socratic questioning, enabling them to connect with their inner strength and find a way forward. Another participant in the control group was very unhappy with their job and as a result of the coaching decided to find a different job. By the time the follow-up coaching questionnaire was administered, the participant was very happy in a new career. Because the sample of the control group was small ($n=11$), these two participants alone would have greatly affected the positive results on the quantitative questionnaires without showing any explanation as to why this has happened.

Occasionally an outcome of coaching is that an employee may decide to leave the organisation, as was the case with one of the control group participants. An employee leaving the organisation may be seen as a negative thing, however if job-occupation misfit is identified, then it may be the best outcome for both the organisation and the employee if they do leave. If an employee has identified strong reasons for their feeling of job dissatisfaction and the reasons are related to job occupation misfit, there is little chance they will ever be effectively engaged in their current job, resulting in less than optimal performance for the organisation, so it may best for all concerned if they find a new job and provide the organisation with an opportunity to find a new employee who is a better fit.

An additional point of interest is that mean scores of the control group started at a lower level on the UWES and the UWES subscales, and slightly higher on the PSS. However it is important to recognise that this may be attributed to a smaller sample size in the control group (N =11) than the MBTI group (N=21), which was due to the fact that 10 participants dropped out of the control group. The difference in mean scores at Time 1 between the experimental and control groups may also have been due to the participants in the control group actually being at higher levels of perceived stress, and lower levels of work engagement at the beginning of the study. The reasons given by some of the participants in the control group suggest that they have been in such a place in their working lives that any type of coaching and support would have resulted in improved states. Studies that include information from qualitative data are likely to provide more valuable insight.

The tools used as measures in the current study did not capture data that would reflect in the impact of major positive influences, and this data may have been better measured by quantitative measures as well as qualitative. The measurement tools used in the current study also failed to capture data regarding the impact of major negative life events. For example, two of the participants in the experimental group lost significant family members during the course of the coaching, which would have greatly impacted their stress levels and work engagement, and qualitative measures may have been more suitable for accessing this type of information. One participant was dealing with a relative being diagnosed with cancer, and one other was made redundant part way through the process.

A further example of events that can impact the results in an unexpected way, was one of the participants was going through a difficult time at work, and the coaching had improved her initial perceived stress scores and work engagement scores. However, between the last coaching session and the two month follow-up, this individual reported that the work situation had changed even more detrimentally, which had resulted in raised stress levels, but the participant also reported that had they not had the benefit of the four coaching sessions, they would

not have been able to cope as well as they had done. The use of qualitative measures would gather data from the unexpected major life events of the participants that would add depth and understanding to the findings of the quantitative data, which may provide greater insight into how using a psychological assessment in a coaching programme can result in more efficiently working towards a coachees' stress management, work engagement and job satisfaction (Grant, 2012).

Hypothesis 3: There is a large body of research that suggests that the relationship between the coach and coachee plays a significant role in the subsequent effectiveness of any coaching or therapeutic intervention (Grant, 2013; O'Broin & Palmer, 2010). The literature suggests that for the coaching relationship to be effective, key elements need to be present including trust and transparency, effective communication, working flexibility and adapting to the coachee. The results of the current study indicate that the participants in both group 1 and group 2 rated the coach highly on the items that have been found to be important in establishing and maintaining an effective coaching relationship. There is no way of knowing if the quality of the therapeutic relationship was a contributing factor with the participants who dropped out of the study, or whether the scores on the PSS and UWES would have been different for the control group if they had not done so.

The results from the Post Coaching Questionnaire also suggested that the experimental group rated the quality of the therapeutic relationship slightly lower than the control group. The slightly lower rating of the quality of the coaching alliance may be one of the factors that contributed to experimental group failing to show a greater reduction in perceived stress and higher work engagement levels. However, there was no statistically significant difference between group 1 and group 2. There was no conscious difference in approach to the participants in either the experimental group or the control group, with the coach attempting to coach each coachee in a consistent way, however it is to be expected that some individuals would respond more favorably towards the coach than others. The higher quality of the coaching relationship that was reported by the control group, may have contributed to a more effective coaching relationship, resulting in more

positive outcomes for the coachee. The results in the current study, suggest that individuals from both groups benefitted from the positive coaching alliance.

While it is unfortunate that ten of the participants from the control group failed to complete the study, as this resulted in control group being half the size ($n=11$) of the experimental group ($n=22$), it is consistent with problems experienced in other contemporary coaching research (Ellam-Dyson, 2012). It is interesting to note that all of the participants who dropped out of the study were from the control group (Group 2) whereas all of the MBTI group (Group 2) continued to the end of the study. This was an unexpected finding and could be due to people liking something tangible to take away with them which is consistent with prior research (Scoular & Campbell, 2007). Individuals like information that is new and interesting about themselves, so this could have been the reason that none of the participants in the experimental group dropped out.

A further consideration is that nine of the ten people who dropped out of the study were from one organisation. The organisation provided 23 participants, which comprised 54.7% of the total participants for the study. Withdrawal from the study could have been due to several factors; the individuals may not have felt they could form an effective alliance with the coach; the individuals were encouraged to take part in the study by the organization, and may not have actually felt the need or desire to take part; the individuals wanted to take part, but were at such a high level of stress, they did not see enough benefit in taking part in the coaching programme to take time out of their already busy day to participate.

One final observation regarding the dropout rate for the control group is that even though the coach specifically advised each participant of the randomisation aspect for the assigning of the MBTI assessment, and that this assignment was to be kept confidential, there is evidence that some of employees did talk about their assessments with each other. The information shared from participants of experimental group about their assessments with participants from the control group who did not receive an assessment, may have resulted in the participants who were assigned to the control group feeling disappointed that they

did not receive the assessment. The disappointment at not receiving an assessment may have caused their subsequent withdrawal, as they may not have perceived there enough value in the coaching programme. This appears to support the theory that coachees like something tangible to take away from the coaching sessions (Scoular & Campbell, 2007).

Limitations of the Study

Even though the current study used randomisation in allocating the participants into groups, which aimed to minimise the differences in groups, it is important to recognise that not every variable could be controlled for. In this current study the researcher did have control over randomly allocating the participants, some characteristics of the coaching coachees and the type of coaching used. The researcher also had control over the number of participants and the duration of the coaching, but this was also a limitation. Using the researcher as the sole coach in the study limited the amount of participants that could be included in the time frame of the study. The duration of coaching was also a limiting factor as 4 x 30 minute sessions may not have provided enough time to embed new learning into the ongoing habits and practices of the participants.

Many studies researching stress have not had very large sample sizes, and this study is no exception with only 31 participants completing the programme. While all of the participants were in employment, with a wide variety of positions and job types represented, the sample size may not have been large enough to provide findings that could generalise to programmes for stress coaching. It should also be noted the 23 (55%) of the original participants in the study were from one organisation, and 9 of the 10 participants who dropped out were from that same organisation. These participants were encouraged to take part in the study by management, so may not have been as engaged as the participants who willingly self selected.

Also worthy of consideration is the fact that the measures used were self report which means some of the participants may have been subject to the demand

characteristic effect, where the participants subconsciously change their responses to fit the aims of the study.

A further limitation was that when assessing the structure of the UWES, the theoretically based correlated three-factor structure was not flawless.

While only the experimental group used the results from the MBTI in their coaching, which in theory would have given them a greater depth of self knowledge to work with, the coach is experienced in using the MBTI assessments, and recognises some of the individual strengths readily. Because the coach was experienced in coaching using the MBTI there may have a carry over effect, with the control group being coached to recognise their strengths, even without the use of an assessment.

Implications

Although the descriptive statistics did not show any support for the hypothesis stating that the inclusion of a psychological assessment in a coaching programme would enhance the results of stress reduction, there was evidence that coaching did reduce stress. An interesting factor of the current study was that all of the participants who were given the MBTI finished the coaching programme, and only half of the participants who did not have the MBTI finished the programme. This has implications for workplace coaching, as the results seem to suggest that those who were given a psychological assessment were more engaged with the process, and therefore more likely to finish a coaching programme that gives them tools to deal with stress. This finding is important from a business perspective as organisations often pay for coaching for their employees, and no organisation wants to spend money on staff if they are not going to be engaged with, and thus benefit from, the coaching programme.

Stress is a complex issue and there are many factors outside of coaching that can influence a persons stress levels. In the current study, factors such as family events, organisational change, job change, relocation, relationship issues and health issues may have influenced the stress levels of participants, and a more holistic

view may need to be taken. It is therefore possible that workplace coaching alone was not enough to significantly reduce stress levels and increase work engagement, but may have helped maintain some balance and given the participants' tools to deal with negative life events.

Recommendations for future research

The primary recommendation in regards to future research is that because there is a paucity of evidence-based research on the use of psychometrics in coaching more empirical studies should explore this topic further. The current study explored the use of the MBTI in coaching to reduce stress, however the coach was experienced in using the MBTI and this may have resulted in a carry over effect, with the control group being coached to recognise their strengths, even in the absence of the assessment. In order to avoid a carry over effect in future studies a variety of coaches with varying levels of experience in using the MBTI for coaching purposes could be used.

Further to this, the higher quality of the coaching relationship that was reported by the control group, may have contributed to a more effective coaching relationship, resulting in more positive outcomes for the coachee (O'Broin & Palmer, 2010), and is an area that further studies could address by using a larger sample and a variety of different coaches.

Finally it is believed that coaching studies would benefit from the additional use of qualitative methods. This is supported in the current study by the richness of the unsolicited information that was gathered from the participants, some of which has been referred to in the preceding chapters. Quantitative data is invaluable, but there may be added value and greater insight if the data gathered was combined with data obtained through qualitative processes (Grant, 2013). The combination of both qualitative and quantitative data within coaching research could provide a depth of information to researchers, practitioners and organisations that would enable them to more effectively deal with diversity in the workplace (A. Lyons C., Madden, Chamberlain, & Carr, 2011). Individuals' lives are not compartmentalised into work and other; their work lives are part of their

overall lives. If work places fail to take into account individual's personal circumstances when looking at reducing stress in the work place, they may not be acting in a holistic enough approach. Individuals in workplaces are very diverse, which includes differences in race, gender and personal situations, and while many organisations make an effort to recruit for diversity, they often then expect everybody to be the same. A combination of qualitative and quantitative research could better address this.

Chapter 8: Conclusion

As workplace stress and work engagement continues to be a major concern for organisations, it is important find ways to address the issue. The use of coaching in the workplace has been documented in previous research, and has been found to be an effective tool when dealing with stress management, job satisfaction and work engagement. Using a psychological assessment in the coaching process may bring further value by contributing towards a more holistic approach, providing the coachee with more individualised information about his or her strengths and preferences.

From an organisational perspective, it is important to consider the influence of a psychological assessment when paying for employees to be coached. The results of the current study suggest that when a psychological assessment is included in the coaching programme, the employee will be more engaged with the process, increasing the likelihood that positive organisational outcomes can be achieved as a result of the coaching.

Though the results of the current study showed no greater reduction in perceived stress levels for the experimental group, nor a significant increase in work engagement, it is important to continue empirical research into the effect of using a psychological assessment in workplace coaching, as both employees and organisations benefit when effective interventions are identified and utilised.

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Appendix A: Participant information sheet

Project Description and Invitation

I would like to invite you to participate in research that investigates the effect of effects of coaching in the workplace to reduce stress and increase job satisfaction.

You would be required to answer short surveys on stress and job satisfaction before, during and after the coaching program.

Filling out the questionnaires implies you have given consent for this information to be used for the purpose of this research.

Participant Identification and Recruitment

Your details have been provided by yourself and participation in this research is voluntary. Participation will involve 4 x 30 minute coaching sessions via the telephone, either weekly or fortnightly and at a mutually agreeable time. Questionnaire data will be collected.

Data Management

Data from the questionnaires will be used exclusively for this study. The questionnaires will be stored in a locked box at Massey University School of Psychology.

Confidentiality will be assured. You will not be identified from the analysis in the study, as no name will be used. Names will be collected so that data may be matched across time. Once all data is entered names will be deleted and ID's assigned.

Participant's Rights

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any particular question;*
- withdraw from the study at any time.*
- ask any questions about the study at any time during participation;*
- provide information on the understanding that your name will not be used unless you give permission to the researcher;*
- be given access to a summary of the project findings when it is concluded.*
- Completion and return of the questionnaires implies consent. You have the right to decline to answer any particular question.*

Project Contacts

I can be contacted at xxxxxxxx or by email xxxxxxxxxxxxxxxxx

My Supervisor Dr Richard Fletcher can be contacted by email r.b.fletcher@massey.ac.nz

Please contact me if you have any questions about this research

Measuring the Effectiveness of using Workplace Coaching to Reduce Stress and Increase Job Satisfaction

PARTICIPANT CONSENT FORM - INDIVIDUAL

I have read the Information Sheet and have had the details of the study explained to me.

My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: **Date:**

Full Name - printed

Male / Female (please circle one)

Date of Birth ____ / ____ / ____

Appendix B: Life purpose worksheet

Life Purpose Worksheet

Please work through it thoughtfully this life purpose worksheet thoughtfully, taking your time, and allowing your unique gifts and your true self to emerge as you do.

Find a quiet place and about an hour of undisturbed time, and respond to each of the following questions.

Clue No. 1: What do you love to do when you have spare time?

Clue No. 2: What parts of your present job or life activities do you thoroughly enjoy? .

Clue No. 3: What do you naturally do well?

Clue No. 4: What have been your 10 greatest successes to date (in your eyes)?

Clue No. 5: Is there a cause or value or quality which you feel passionate about?

Clue No. 6: What are the 10 most important lessons you have learned in your life

Clue No. 7: Think back over your life. Are there some issues or perceived problems that have occurred over and over again?

Clue No. 8: What do you daydream (or dream) about doing?

Clue No. 9: Imagine you are writing your epitaph. What things do you want to be remembered for? What things will your life be incomplete without?

Clue No. 10: What would you do if you knew you could not fail?

Now, narrow down your responses to glean the most important aspects of your life purpose and write any themes you notice here:

To compose your life's purpose statement, synthesizing your responses to the Clues, use the following format:

"My life's purpose is to [ESSENCE] through [EXPRESSION]

Write your life's purpose statement here:

"My life's purpose is to _____."

through _____

Appendix C: Values worksheet

Values Worksheet

A critical factor in job design is your values, as they relate to work. Fulfillment in work comes when the life and work values that are important to you are met through your work. At the same time, the company for which you work should share at least the most important of those values. Otherwise you will experience constant turmoil and conflict, as well as a feeling that you "can't be yourself" at work.

What are values? Values are simply things about work that, to you, are intrinsically valuable or desirable. They can be accessed most easily by asking yourself the question, "What do I want out of my work?" Or, "why do I work?" Begin by asking yourself these questions now, and write down your responses. If you get stuck, look at the previous value and ask what is important to you about that.

My Critical Work Values

I work because:

- 1.
- 2.
- 3.
- 4.

I want the following things out of my work:

- 1.
- 2.
- 3.
- 4.
- 5.

Some values commonly expressed are listed below. Rank each of the listed values as (1) not important, (2) somewhat important, or (3) very important to you in your choice of career.

Values at Work

- ___ Enjoyment (having fun at what you do)
- ___ Helping other people (in a direct way)
- ___ Friendships (developing close relationships with co-workers)
- ___ Contribution (desire to make a difference, to give)
- ___ Freedom (flexible schedule, independence)
- ___ Recognition (being recognized for your work in a tangible way)
- ___ Creativity (new ideas; innovation)

- ___ Location (being able to live where you choose)
- ___ Competition (matching your abilities with others')
- ___ Power and authority (being in managerial or leadership position; being
- ___ Responsible for supervising others; having decision-making authority)
- ___ Achievement (results; mastery; tasks completed)
- ___ Compensation (receiving fair monetary reward for your efforts)
- ___ Variety (a mix of tasks to perform and people dealt with during each day)
- ___ Security (feeling of stability, no worry; certainty)

- ___ Prestige (being seen as successful; obtaining recognition and status)
- ___ Aesthetics (beauty of work environment; contributing to beauty of the world)
- ___ Morality and ethics (working according to a code or set of rules; enhancing world ethics)
- ___ Family happiness (desire to get along; need for harmony)
- ___ Public contact (working with customers, as opposed to working alone or working with objects only)
- ___ Pace (busy versus relaxed working atmosphere)
- ___ Risk (monetary or other risks -- e.g., new product development or start-up enterprise)
- ___ Control (desire to be in charge)
- ___ Cooperation (teamwork, working with others)
- ___ Independence (freedom from controls)
- ___ Inner Harmony (desire to be at peace in yourself)
- ___ Learning (growth; knowledge; understanding)
- ___ Loyalty (duty; allegiance; respect)
- ___ Quality (excellence; high standards; minimal errors)
- ___ Personal Development (improvement; reach potential)
- ___ Tradition (valuing the past; customs)
- ___ Tolerance (openness to others, their views and values)

Now, think about your current job. How many of the values you have marked "3" for "very important" are being fulfilled through that job?

Your answer gives you a very important insight as to why you may feel dissatisfied with that job.

List your 5 most important values (whether included in the above list or not)

Appendix D: Motivators worksheet

Motivators Worksheet

You are now ready to explore Motivators. Things that inspire you to work well.

Think of at least 4 instances in which you felt highly motivated to do the activity. They may be in a job, school, a hobby, or another type of situation. Briefly describe these situations below:

Now, consider what each of these situations had in common. Were you in a similar setting? With similar types of people? Doing a particular kind of task you genuinely enjoy? Did you feel a certain way (challenged, proud, etc.)? List those common threads below.

These common threads that you have now identified are at least some of the things that will motivate you to do your best in your job. Can you think of others? List them here:

Now, list the 5 motivators that are most important in your work for you to feel excited about doing the work and/or dedicated to doing your best

Appendix E: Assessing energy worksheet

Assessing Energy Worksheet

Please tick the statements below that are true for you.

Body

- I don't regularly get at least 7 to 8 hours of sleep and I often wake up tired
- I frequently skip breakfast or settle for something that isn't nutritious
- I don't work out enough (meaning cardiovascular training at least three times per week and strength training at least once a week)
- I don't take regular breaks during the day to truly renew and recharge, or often eat lunch at my desk, if I eat at all

Mind

- I have difficulty focusing on one thing at a time, and I am easily distracted during the day, especially by e-mail
- I spend much of my day reacting to immediate crises and demands rather than focusing on activities with longer-term value and high leverage
- I don't take enough time for reflection, strategising and creative thinking
- I work in the evenings or on weekends, and I almost never take an e-mail free holiday

Emotions

- I frequently find myself feeling irritable, impatient, or anxious at especially when work is demanding
- I don't have enough time with my family and loved ones, and when I'm with them I'm not always really with them
- I have too little time for the activities that I most deeply enjoy
- I don't stop frequently enough to express my appreciation to others or to savor my accomplishments and blessings

Spirit

- I don't spend enough time doing what I do best and enjoy most.
- There are significant gaps between what I say is most important to me in my life and how I actually allocate my time and energy
- My decisions are more often influenced by external demands than by a strong, clear sense of my own purpose
- I don't invest enough time and energy in making a positive difference to others or to the world

Guide to scores

Total number of statements ticked:

0-3 - excellent energy management skills

4-6 - reasonable energy management skills

7-10 - significant deficits in energy management skills

11-16 - full-fledged energy management crisis

What do you need to work on?

Number of ticks in each category:

___ Body

___ Mind

___ Emotions

___ Spirit

Guide to category scores

0: - excellent energy management skills

1: - strong energy management skills

2: - significant deficits in energy management skills

3: - poor energy management skills

4: - full-fledged energy management CRISIS

Appendix F: Resilience building activities

Resilience building activities

Resilience is important because it helps us to move through times of stress, or worry in a more calm and healthy way

Physical Energy

Go to bed half an hour earlier

Eat every 3 hours

Learn signs of energy flagging

Drink plenty of water

Reduce intake of alcohol, coffee, energy drinks

Cardiovascular exercise 3 x per week

Emotional Energy

Irritable, Impatient, insecure, anxious? Breathe in 3 and out 5

Regularly express appreciation of others

Adopt a reverse lens – what would the other person say?

Use a long lens – How will I likely view this in 12 months time

Use a wide lens – what can I learn from this?

Mental energy

Reduce interruptions by performing high concentration tasks away from telephone, email – put phone onto call minder or answer phone

Designate particular times to respond to phone and email messages – turn off email alert

Take 20 minutes at the end of each day to review what you have done and identify your priorities for the next day

Turn off email alert

Have calendar come up first when you switch on your computer

Spiritual Energy

Know the tasks and activities that energise you- give you a feeling of effectiveness, fulfillment, appear effortless

(these may include – meditation, prayer, worship, meeting with like-minded people, make time for these)

Take time to reflect whether the way you are spending your time matches your values

Walk the talk – If for example you say consideration is important, and you are always late for meetings, make an effort to be on time.

At the end of each day

What did I do well today?

What was the most challenging?

What are my priorities for tomorrow?

What will I do tonight to take care of myself?

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate how often you felt or thought a certain way. **Please type an “x”** next to the correct response for you.

Name

Date

1. In the last month, how often have you been upset because of something that happened unexpectedly?
 - 0 – Never
 - 1 – Almost Never
 - 2 – Sometimes
 - 3 – Fairly Often
 - 4 – Very Often
2. In the last month, how often have you felt that you were unable to control the important things in your life?
 - 0 – Never
 - 1 – Almost Never
 - 2 – Sometimes
 - 3 – Fairly Often
 - 4 – Very Often
3. In the last month, how often have you felt nervous or “stressed”?
 - 0 – Never
 - 1 – Almost Never
 - 2 – Sometimes
 - 3 – Fairly Often
 - 4 – Very Often
4. In the last month, how often have you felt confident about your ability to handle your personal problems?
 - 0 – Never
 - 1 – Almost Never
 - 2 – Sometimes
 - 3 – Fairly Often
 - 4 – Very Often
5. In the last month, how often have you felt that things were going your way?
 - 0 – Never

- 1 – Almost Never
- 2 – Sometimes
- 3 – Fairly Often
- 4 – Very Often

6. In the last month, how often have you found that you could not cope with all of the things that you had to do?

- 0 – Never
- 1 – Almost Never
- 2 – Sometimes
- 3 – Fairly Often
- 4 – Very Often

7. In the last month, how often have you been able to control irritations in your life?

- 0 – Never
- 1 – Almost Never
- 2 – Sometimes
- 3 – Fairly Often
- 4 – Very Often

8. In the last month, how often have you felt that you were on top of things?

- 0 – Never
- 1 – Almost Never
- 2 – Sometimes
- 3 – Fairly Often
- 4 – Very Often

9. In the last month, how often have you been angered because of things that were outside of your control?

- 0 – Never
- 1 – Almost Never
- 2 – Sometimes
- 3 – Fairly Often
- 4 – Very Often

10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

- 0 – Never
- 1 – Almost Never
- 2 – Sometimes
- 3 – Fairly Often
- 4 – Very Often

Work and Well-being Survey (UWES)

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling type "0" (zero). If you have had this feeling, indicate how often you feel it by typing the number (from 1 to 6) that best describes how frequently you feel that way.

0- Never

1- Almost never (a few times a year)

2- Rarely (Once a month or less)

3- Sometimes (A few times a month)

4- Often (Once a week)

5- Very Often (A few times a week)

6- Always (Every day)

- 1) At my work, I feel bursting with energy
- 2) I find the work that I do full of meaning and purpose
- 3) Time flies when I'm working
- 4) At my job I feel strong and vigorous
- 5) I am enthusiastic about my job
- 6) When I am working I forget everything else around me
- 7) My job inspires me
- 8) When I get up in the morning, I feel like going to work
- 9) I feel happy when I am working intensely
- 10) I am proud of the work that I do
- 11) I am immersed in my work
- 12) I can continue working for very long periods at a time
- 13) To me, my job is challenging
- 14) I get carried away when I'm working
- 15) At my job I am resilient mentally
- 16) It is difficult to detach myself from my job
- 17) At my work I always persevere, even when things do not go well

Post Coaching Questionnaire

As a coach and for the purposes of this study it useful to understand how you have found the coaching process. Your honest feedback is greatly appreciated.

Please mark each statement according to how strongly you agree or disagree.

- 1- strongly disagree*
- 2- disagree*
- 3- slightly disagree*
- 4- slightly agree*
- 5- agree*
- 6- strongly agree*

- 1) My coach had qualities that I found helpful in coaching.
- 2) I felt that my coach understood me
- 3) I felt that the coach and I were working together in a joint effort
- 4) The techniques used in the coaching sessions were well suited to my needs
- 5) A good relationship was developed with my coach
- 6) The coaching sessions helped me gain new insights

Appendix J: Mary McGuinness consent form

Consent from Mary McGuinness

Hi Deborah

I give permission to use page 4 from You've Got Personality for your Masters thesis. The only condition is that it is properly referenced on the page and in the Bibliography.

Please note that this permission is only for this request. If you want to use it again at any future time you will need to make a separate request.

I appreciate your honesty. God luck with the thesis. I would love to hear your results.

All the best,
Mary McGuinness

Consent from the Energy Project #1

Deborah

Thank you for reaching out to us, and for sharing such kind words! Exciting news – we actually are working on a product for coaches to use with their coachees, and I thought you would be keen to hear about it. For the time being, we have a [LinkedIn group](#) for coaches that will get updates about the products first. I also would be happy to add you to our coaches mailing list, so you'll be sure not to miss any updates.

Also, I cannot tell you how much we appreciate your emailing and asking permission to use the “Our Core Needs” diagram in your masters thesis. We are happy to accommodate, and welcome you to use the diagram for your academic pursuits. With it being a thesis, it will be cited, correct?

If you have any additional questions, please don't hesitate in reaching out. And have a lovely week!

Appreciatively,
Betsy

Betsy Harbison
Director of Marketing
o 914.207.8800
f 718.549.0541
e betsy@theenergyproject.com



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Consent from the Energy Project #2

Deborah

Thank you for your patience while we were out of the office for our offsite last week! I hope it didn't cause any snags on your end in completing your thesis!

As long as the content is being used in your thesis, and is accurately cited (thanks!!), you may use the questionnaire and the anecdotal information. The reason why I reiterate "in your thesis" is because the questionnaire is part of our intellectual property and a critical part of our People Fuel program. And, looking back to your original email, I'm seeing that you had asked that earlier! I apologize for not stating so in my last email.

Best of luck with your thesis, and please let me know if there's anything else I can do for you!

Warmly,
Betsy

Betsy Harbison
Director of Marketing
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f 718.549.0541
e betsy@theenergyproject.com



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Appendix M: CPP consent form

CPP Consent Form

CPP Standard Permission Agreement: Publications

Permission Agreement #: 19451	Version: November 2014
-------------------------------	------------------------

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Licensee Email:	deb.prideaux@gmail.com
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7.9. **LIMITATION OF LIABILITY.** EXCEPT FOR LICENSEE'S VIOLATION OF ANY OF CPP'S INTELLECTUAL PROPERTY RIGHTS OR MISUSE OF CPP'S CONFIDENTIAL INFORMATION, IN NO EVENT SHALL CPP'S LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT, WHETHER IN CONTRACT, TORT, OR UNDER ANY OTHER THEORY OF LIABILITY, EXCEED IN THE AGGREGATE THE TOTAL AMOUNT PAID BY LICENSEE UNDER THIS AGREEMENT.

7.10. **NO EXPRESS OR IMPLIED WARRANTY.** THE LICENSED CONTENT ARE PROVIDED "AS-IS." CPP MAKES NO REPRESENTATION OR WARRANTY REGARDING THE LICENSED CONTENT OTHER THAN THOSE SPECIFIED IN THIS AGREEMENT. TO THE FULLEST EXTENT PERMITTED UNDER APPLICABLE LAW, CPP DISCLAIMS ANY IMPLIED OR STATUTORY WARRANTY.

7.11. **Indemnification by CPP.** If a third-party makes an intellectual property claim against Licensee, CPP will defend, indemnify, and hold harmless Licensee against the intellectual property claim and pay all costs, damages, and expenses (including reasonable legal fees) finally awarded against Licensee by a court of competent jurisdiction or agreed to in a written settlement agreement signed by CPP arising out of such intellectual property claim, provided that (i) Licensee promptly notifies CPP in writing after Licensee's receipt of notification of a potential claim; (ii) CPP

may assume sole control of the defense of such claim and all related settlement negotiations; and (iii) Licensee provides CPP, at CPP's request and expense, with the assistance, information, and authority necessary to perform CPP's obligations under this Section. If Licensee has services provided by other service providers that are subject to the intellectual property claim, then CPP's obligation will be to pay a pro rata portion of such damages, costs, liabilities, or expenses, based on the percentage of Licensee's total end users for whom CPP has provided the claimed infringing services. CPP shall not be bound or materially prejudiced without its prior written consent. If, due to an intellectual property claim or the threat of an intellectual property claim, (i) the Licensed Content provided by CPP are held by a court of competent jurisdiction, on in CPP's reasonable judgment may be held to infringe by such a court, or (ii) Licensee receives a valid court order enjoining Licensee from using the Licensed Content, or in CPP's reasonable judgment Licensee may receive such an order, CPP shall in its reasonable judgment and at its expense, (a) replace or modify the Licensed Content to be non-infringing without materially reducing the functionality of the Licensed Content; (b) obtain for Licensee a license to continue using the Licensed Content; or (c) if non-infringing Licensed Content or a license to use cannot be obtained on a commercially reasonable basis, either party may terminate the use of the infringing Licensed Content without any liability.

7.12. **Surviving Provisions.** The following provisions shall survive any termination or expiration of this Agreement:

- 7.12.1. Section 1, *Definitions*;
- 7.12.2. Section 3, *Fees & Payment Terms*;
- 7.12.3. Section 5, *Intellectual Property*;
- 7.12.4. Section 6.3, *Effects of Termination or Expiration*; and
- 7.12.5. Section 7, *General Provisions*.

To evidence the parties' agreement to this Agreement, they have executed and delivered it on the dates indicated below:

CPP, INC.


Thad Stephens (Feb 26, 2015)

Signature

Thad Stephens

Print Name

VP

Title

Feb 26, 2015

Date

LICENSEE


Deborah Prideaux (Feb 27, 2015)

Signature

Deborah Prideaux

Print Name

Title

Feb 27, 2015

Date